C.D. Howe Institute

Lessons from the National Energy Program

Edward A. Carmichael
James K. Stewart

C.D. Howe Institute

The C.D. Howe Institute was established in 1973 by the merger of the C.D. Howe Memorial Foundation and the Private Planning Association of Canada. It is a non-profit, non-political organization seeking to contribute non-partisan research findings and commentary on Canadian economic policy issues.

The guiding principle of the Institute is to conduct its research and analysis in a manner that is balanced in approach, professional in method, and readable in style.

To ensure diversity in perspective, participation is encouraged from organized labor, business, agricultural associations, and the professions.

While its focus is national, the Institute recognizes that Canada is composed of regions, each of which may have a particular point of view on policy issues, unique interests and concerns, and different concepts of national priorities. The Institute also pursues involvement from both of Canada's major linguistic communities.

It is not the purpose of the Institute to promote consensus on policy issues, although on occasion that may be feasible. The primary function is to add to public understanding of issues by providing sound analysis reflecting objective treatment of diverse points of view.

Although governments and their departments are excluded from Institute membership, the staff of the Institute seeks to develop good working relationships with public officials for the purposes of better understanding the basis for government decisions and contributing effectively to public policy formulation.

A Board of Directors is responsible for the general direction of the Institute. The function of the Board is to make independent research and publication possible under the most favorable conditions and not to control the conduct and conclusions of research activity. The direction of the policies, program, and staff is vested in the Executive Director.

W.J. Stenason is Chairman, Wendy Dobson is Executive Director and Treasurer, and Janet S. Hatfield is Corporate Secretary.

The Institute's publications are available from its offices: Suite 2040, 1155 Metcalfe Street, Montreal, Quebec H3B 2X7; P.O. Box 1621, Calgary, Alberta T2P 2L7; and Glendon Hall, 2275 Bayview Avenue, Toronto, Ontario M4N 3M6.

SUMMARY

LESSONS FROM THE NATIONAL ENERGY PROGRAM

by Edward A. Carmichael and James K. Stewart

The National Energy Program, introduced in October 1980, unilaterally imposed fundamental changes affecting energy consumers, producers and governments. Its architects envisaged the policy as the cornerstone of a strategy to shape Canada's economic and energy future. That vision has since been shattered by unforeseen developments in world oil markets and serious flaws and miscalculations in the policy. This study presents an in-depth review of Canadian energy policy since the National Energy Program was introduced and of the process of energy policy negotiation that led to the federal-provincial energy agreements reached in late 1981.

The authors conclude that, with the NEP, the federal government overreached its capacity to direct and control events in the volatile energy sector. The energy agreements with the producing provinces have proved too inflexible to adapt to Canada's rapidly changing energy challenges. The conflict-prone process that made the achievement of the agreements so difficult now stands as a major obstacle to changing the policy in light of new realities of excess energy supply, declining world oil prices and stalled energy development.

The objectives and specific measures of the NEP and the subsequent changes agreed to between Ottawa, Alberta and other producing provinces are detailed in Chapter 2. In spite of the changes, the original objectives of the NEP still stand:

- **energy security** to be achieved by eliminating oil imports by 1990;
- **fairness in energy pricing and revenue sharing** to be achieved by holding Canadian crude-oil prices below world levels and by increasing the share of energy revenues to the federal government;
- **increased opportunity for Canadian participation** in the petroleum industry to be achieved by increasing Canadian ownership of the oil and gas industry to 50 percent by 1990.

The shortcomings of the NEP arise from the fact that the policy was based as much on political as economic calculations. It was the political appeal of the objectives in the turbulent energy environment of 1980-81 that thrust them to prominence.

Canada's energy policy since the NEP is analyzed in Chapters 3 to 5. On the basis of this analysis, in Chapter 6 the authors present several lessons for future energy policy. The fundamental lesson to be learned from the NEP is that policy makers must clearly understand the importance of their assumptions about events beyond their control. An awareness that policy objectives are sensitive to these assumptions should lead to built-in contingency plans for coping with unforeseen events. More specific lessons based on the earlier analysis relate to the three major objectives of the NEP and to the policy-making process.

- Canadianization is an unnecessary and wasteful method of securing resource benefits for Canadians. It is unnecessary because new energy taxes and regulatory devices introduced in the NEP have effectively reduced the windfall profits flowing to foreigners. It is

wasteful because the purchase of foreign petroleum companies imposes significant costs on Canadians without providing significant long-term benefits over and above those generated by the new taxes and regulatory mechanisms.

- The volatility of energy revenues can cause abrupt shifts in revenue shares between industry and governments. Changing market conditions also result in a change in what constitutes "fair" revenue sharing. Thus, equating fairness with specific target revenue shares for the industry, federal and provincial governments introduces significant rigidity into Canadian energy pricing and taxation. This rigidity reduces the ability of Canadian energy producers and consumers to adjust to changes in the world energy market.
- The ability of oil self-sufficiency to insulate Canada indefinitely from changes in the world oil market is limited. World oil prices are an important aid in determining the desirability of developing Canadian energy resources. The NEP system of exploration and development incentives heavily favors high-cost frontier energy sources. Under the present tax regime, with stagnant world oil prices Canada may only be able to achieve oil self-sufficiency by offering to pay prices above world levels -- a situation that could lead to significant inefficiency in Canadian energy production and consumption.
- The way in which energy policy is made could be improved by allowing more non-governmental input and promoting public awareness. Problems in the bureaucratic and political process of energy policy making led to the energy agreement of 1981, which served the interests of the federal government and the provincial governments involved rather than the interests of all

Canadians. Overlapping constitutional responsibilities of the two levels of government make the policy process both an essential element and a potential bottleneck in the conduct of energy policy.

The deficiencies of the process continue to plague energy policy in 1983 since they stand as a major obstacle to the policy adjustments made necessary by the rapid changes in the energy market.

During 1982, after the federal-provincial energy agreements had been signed, energy policy received far less public attention. In this environment, governments placed a relatively low priority on addressing the new and very different energy challenges that were emerging. Falling world oil prices in early 1983 increased public awareness that policy changes are needed to deal with a situation of excess supply, stagnant prices and diminished incentives to explore and develop new sources of energy. A reassessment of Canada's energy objectives is already overdue. There are many lessons that can be learned from the NEP. If they are recognized, future policies are likely to be more effective and less contentious.

Copies of **Lessons from the National Energy Program** can be obtained from:

C.D. Howe Institute

Glendon Hall, 2275 Bayview Ave., Toronto, Ontario, M4N 3M6 Tel: (416) 485-4310

Suite 2040, 1155 Metcalfe St., Montreal, Quebec, H3B 2X7 Tel: (514) 879-1254

P.O. Box 1621, Station "M", Calgary, Alberta, T2P 2L7 Tel: (403) 233-8044

Price per copy: $6.00

Lessons from the National Energy Program

Edward A. Carmichael
James K. Stewart

Observation No. 25

C.D. Howe Institute

ISBN 0-88806-118-8
Quotation with appropriate credit is permissible.
C.D. Howe Institute, Toronto, Montreal and Calgary
Printed in Canada – May 1983, $6.00

Contents

Foreword v

1 Introduction 1

2 Canadian Energy Policy in Transition 5
The National Energy Program 5
Reaction to the National Energy Program 7
The Impasse 8
The Canadianization Spree 9
Solution to the Impasse 10
World Oil Market Developments 14
Policy Changes in 1982 20

3 Assessing Canadianization 22
The Benefits of Canadianization 22
The Costs of Canadianization 26
Summary 31

4 Achieving Energy Security and Fairness 32
Energy Security 32
Sharing Energy Revenues 39
Summary 42

5 The Pitfalls of Canadian Energy Policy-Making 44
The Federal Policy Process 44
The Federal-Provincial Policy Process 50
Summary 55

6 Lessons from the National Energy Program 56

Appendix A: NEP Highlights 60

Tables
1 Financial Results for Acquiring Companies 29
2 Selected Financial Statistics for Acquiring Companies and All Industries 30
3 Comparison of NEB and EMR Oil Supply Forecasts, 1990 36
4 Revenue Sharing Estimates 39
5 Expectations of Federal Government Energy Revenues 41

Figures
1 Oil Wellhead Price, NEP and EPTA 12
2 Why Demand for OPEC Oil Is Falling 16
3 Two Views of the 75 Percent Cap 19
4 Capital Flows, Interest Rates and the Exchange Rate, 1980-81 29
5 Oil Self-Sufficiency by 1990? 35

Foreword

The ultimate success of an economic policy can be measured by the extent to which it adds to national welfare through its influence, intended and unintended, on economic activity. The National Energy Program (NEP) was intended to achieve three specific objectives: faster oil self sufficiency, wider distribution of petroleum revenues, and greater Canadian ownership and control of the industry by 1990 than otherwise would have occurred.

Was the Program a "good" policy in the sense that, in its design and implementation, its benefits to the Canadian economy outweigh its costs? Were there other means by which the same objectives could have been achieved in less costly ways?

In 1983 the costs of the NEP, on nearly all counts, appear to outweigh the benefits; there are less costly and disruptive means that could be expected to achieve the same, or even superior, benefits to the Canadian economy.

But a full and fair assessment of the NEP is not entirely possible in 1983 because it was designed as a long-term policy. Such an evaluation at a later date may not be possible, however, because changes in the world oil market, unanticipated by the NEP's designers, now necessitate substantial alterations in the policy.

There are important lessons to be learned from the experience with the NEP and from the process by which it was formulated. These lessons are the subject of this *Observation*. They are drawn by the authors on the basis of an evaluation of the conflicts that have arisen and the tradeoffs that have been made in carrying out NEP objectives since 1980. Although the analysis and text were completed in January 1983, before the drop in world oil prices, the possibility of such an occurrence was taken into account by the authors.

A central lesson from the NEP has to do with decision-making under uncertainty. The NEP's designers failed to plan for the event, which seemed unlikely in 1980, that world oil prices would drop, rather than continue to climb, as they had in the 1970s. The absence of a contingency plan has led to an over-dependence by governments on energy revenues and will force them to create a new energy policy.

These negotiations for the new policy, which are expected to take place in 1983, should be based on another lesson from the NEP. The process will have to be opened up, to include not only governments, but other interested parties as well – who can bring other interests and more information to the decisions to be made.

The most fundamental decisions will be ones about oil and natural gas prices, for it makes little economic sense to continue to regulate these prices in the

inflexible way adopted in the NEP. The closeness of Canadian and world oil prices provides a unique opportunity to adopt a more sensible pricing policy that moves more closely to, and with, world prices.

Several other lessons are drawn in Chapter 6. This study was prepared as a team effort between Edward Carmichael, who wrote the first four and the final chapter, and James Stewart, who wrote Chapter 5. Early drafts were reviewed by members of the Institute's Policy Analysis Committee and by experts in the energy field. Erin Holmes supplied research assistance, and Monica Townson and Neil Cole prepared the manuscript for publication. The views expressed are those of the authors and the Institute's staff and do not necessarily represent the opinions of the members of the Institute or of the Policy Analysis Committee.

Wendy Dobson
Executive Director
May 1983

1

Introduction

The National Energy Program (NEP), introduced in October 1980, unilaterally imposed fundamental changes on the Canadian energy sector. Indeed, federal policy-makers who devised the NEP envisaged it as the cornerstone of a strategy that would shape the nation's economic destiny for years to come. In the course of the NEP's first two years, that vision has been shattered by unforeseen developments in the rest of the world, and by serious flaws and miscalculations within the policy itself. Since 1980, it has become apparent that the federal government, in setting bold new objectives, over-reached its capacity to direct and control events in the volatile energy sector. Negotiating federal-provincial energy agreements through a rigid and conflict-prone process, both the Alberta and federal governments excluded Canadian petroleum producers and consumers and agreed on a pact which has proven too inflexible to adapt to Canada's rapidly changing energy challenges.

The NEP's three objectives are well known – energy security, fairness in energy pricing and revenue sharing, and increased opportunity for Canadian participation in the petroleum industry.[1] The setting of some very specific targets gave substance to these rather general objectives.

Energy security was to be achieved through gaining independence from the world oil market by 1990; this implied the elimination of oil imports. Fairness in pricing and revenue sharing was to be achieved by holding the consumer price of domestic crude oil significantly below the price of equivalent foreign oil and by securing for the federal government a larger share, specifically about 25 percent, of energy revenues. The commitment to increased Canadian participation was to be met by reducing foreign ownership of the petroleum industry to 50 percent by 1990.

1. Department of Energy, Mines and Resources, *The National Energy Program* (Ottawa: Supply and Services Canada, October 1980), p. 2.

The policy targets were to be achieved by a set of measures introduced in the NEP and subsequent energy agreements. These included taxation and royalty arrangements, administered energy prices, public ownership, investment incentives, regulatory mechanisms and government suasion. The federal-provincial energy agreements imposed taxes, royalties and incentives that were to determine the distribution of between $100 billion and $200 billion of energy revenues during a five-year period – magnitudes that would have major implications, not only for the petroleum industry but for the entire economy as well, since they would affect economic growth, inflation and the balance of payments. Details of the transition in Canadian energy policy since the introduction of the NEP are summarized in Chapter 2.

The NEP was designed to deal with a completely different set of energy challenges from those Canada actually faces in 1983. First, it was intended to manage domestic energy resources in an international environment of excess demand for petroleum and sharply rising prices. The current reality in 1983 and in the medium term is for excess supply of oil and gas and depressed prices. Second, the pricing and taxation regimes of both the NEP and the subsequent federal-provincial agreements were designed to redistribute revenues from the booming petroleum industry to governments. The current reality is a badly slumping industry with depressed profits and cash flow. Declining demand, debt loads created by acquisitions of foreign-owned oil companies, high interest rates and new taxes have combined to weaken severely the industry's financial condition. Third and finally, the NEP included measures to halt and reverse increasing foreign control of the Canadian petroleum industry. By implementing a tax-subsidy system which discriminates against foreign-owned companies and by retroactively changing resource ownership conventions, however, the NEP has created new and different problems – a sizeable flight of foreign capital and a souring of the foreign investment climate not only in the petroleum industry but in other sectors as well.

The NEP and the subsequent agreements are flawed, both in terms of general objectives and the specific measures employed to achieve them. These shortcomings arise from the fact that the policy was based as much on political as on economic calculations. For example, no convincing economic rationale exists for Canadianizing the petroleum industry, or for an inflexible commitment to oil self-sufficiency. It was the political appeal of these objectives in 1980 which thrust them into prominence as major energy policy objectives.

These flaws have been exposed by unexpected changes in the economic situation and in the energy sector, changes which have overshadowed the more fundamental debate about the desirability of achieving the NEP's three basic objectives. An economic analysis of those objectives, detailed in Chapters 3 and 4, leads to the conclusion that even if the assumptions of the NEP had

proven accurate, it would still be a poor energy policy for Canada. It is damaging in its pursuit of Canadianization; it is inflexible in its desire to achieve fairness; and it could generate serious resource misallocation in its attempt to achieve oil self-sufficiency.

The analysis begins with the underlying rationale for each objective and then examines the consistency or conflict among them. It compares the economic costs and benefits under varying assumptions and assesses the potential for the achievement of the objectives within the specified period of time. The unpredictable nature of developments in world energy markets is also taken into account, and the degree of flexibility in the policy assessed. The analysis is also concerned with the efficiency of measures chosen to carry out the NEP. It is assumed that measures which can achieve the objectives at the lowest cost are preferable, at least where the costs may be measured in terms of economic consequences or reduced ability to achieve other objectives.

The bureaucratic and political process of energy policy-making is the subject of Chapter 5. In Canada, the provincial governments have responsibility for natural resources while national economic management is that of the federal government. Consequently, the policy process is at once an essential element and a potential bottleneck in the conduct of both energy and economic policy. The existing process has excluded input from interested parties other than the governments involved and, as a result, concerns of such groups have not been adequately considered. Federal-provincial negotiations have been characterized by conflict and delay. The economic consequences of such deficiencies were clearly evident during the Ottawa-Alberta stalemate of 1981. Less apparent are the continuing costs imposed by the inflexibility of the energy agreements. This inflexibility is a product of the deficiencies of the process itself. The result is that Canadians have been locked into an energy policy which has become increasingly out of step with reality.

In Chapter 6 several lessons from the NEP are presented, based on the analysis in earlier chapters. Some important lessons relate to the chosen objectives of the NEP. The politically popular objective of Canadianization through the purchase of foreign-owned oil companies in Canada is shown to be an unnecessary and wasteful method of securing resource benefits for Canadians. It is unnecessary because new energy taxes and regulatory devices introduced in the NEP have effectively reduced the windfall profits flowing to foreigners. It is wasteful because the purchase of foreign-owned petroleum assets imposes significant costs on Canadians without providing additional long-term benefits over and above those generated by the new taxes and regulatory mechanisms.

Pursuit of the objective of oil self-sufficiency regardless of the state of world oil markets encourages inefficient use of resources. While the NEP aims to

achieve total independence from world oil markets through the elimination of oil imports, attempts to divorce Canada from international oil market forces are unlikely to be successful for long because of the characteristic sharp swings in the balance of oil supply and demand and the accompanying large price movements. Major new oil sources in Canada will be expensive to produce, and their viability heavily dependent on the future course of world prices. Indeed, oil self-sufficiency may be possible only if Canadians are willing to pay prices for frontier oil higher than the world oil price. In view of the uncertainty about future world prices, attainment of energy security at reasonable cost may require an oil supply strategy that places less emphasis on incentives to produce high cost oil.

The objective of achieving greater fairness in the sharing of energy revenues has provided other lessons. In the past year, policy-makers have witnessed rapid changes in energy markets. Because energy supply, demand and prices are so volatile, total revenues and the shares accruing to governments and industry have proven quite unpredictable. Yet recent energy policy negotiations have placed great emphasis on revenue share targets. Adopting specific percentage targets for each of the participants greatly reduces flexibility in dealing with changing market conditions. In the first two years of the NEP, "fairness" came to be viewed as a euphemism for increasing the federal share of energy revenues. Since federal taxes are highly sensitive to stagnating world oil prices, however, the federal quest for increased revenues has been partially frustrated. The objective of fairness may in the end be jettisoned (and with it the commitment to hold Canadian oil prices to 75 percent of world levels) in order to realize higher federal revenues.

Some of these conclusions – drawn only two years after the introduction of the NEP – must be viewed as preliminary. It is possible that world economic and energy developments will once again favour some of the objectives and approaches adopted in 1980. Other conclusions, particularly those on Canadianization and the policy process, are more definite. Taken together they imply the need for new mechanisms to facilitate ongoing review of Canada's energy policy. Existing energy agreements were put in place for a five-year period. However, the energy situation and outlook has already changed dramatically; further change is inevitable. Merely because a federal-provincial agreement is in place, Canadians should not assume that the nation's energy strategy is working effectively.

2

Canadian Energy Policy in Transition

A period of abrupt transition in Canadian energy policy began in 1979 as a result of dramatic changes in world oil market conditions. Sharp increases in foreign oil prices in 1979-80 exposed weaknesses in Canada's existing energy policies and posed difficult questions about appropriate energy pricing and revenue sharing. The NEP and the federal-provincial energy pricing and taxation agreements, concluded in the autumn of 1981, represented the response of Canadian governments to the changed international environment. But world oil markets have continued to be volatile, and the recent weakening of foreign oil prices has already brought significant changes in the federal-provincial agreements. More are probably to come. More importantly, the impact of international developments on energy revenues and supply and demand prospects reveals inconsistencies and lack of flexibility in Canada's energy policy objectives. In this chapter, changes in Canadian energy policy and in international oil markets are reviewed to provide a background to the analysis in subsequent chapters.

The National Energy Program

The doubling of world oil prices in 1979 and 1980 rendered Canada's existing energy policy obsolete. The realization, in 1979, that the policy of gradually increasing domestic prices to world levels was no longer possible precipitated a heated debate between Ottawa and Alberta over energy policy.

Difficulties in formulating and negotiating energy policy proved to be an important factor in the Conservative government's parliamentary defeat and subsequent loss in the February 1980 federal election.[1] The Liberal Party's energy platform was a major factor in its electoral victory.[2] Determined to

1. Jeffrey Simpson, *Discipline of Power* (Toronto: Personal Library, 1980).
2. Ronald James Zukowsky, *Intergovernmental Relations in Canada: The Year in Review 1980*,

capitalize on the political advantages of energy policy, the federal government decided to act on its own in setting a new direction when negotiations with Alberta broke down in July 1980.

The NEP was presented to Canadians as part of the budget on 28 October 1980. Specific measures (summarized in Appendix I) were adopted to achieve three broad energy objectives: energy security, fairness in energy pricing and revenue sharing, and increased opportunity for Canadian participation in the petroleum industry.

The objective of security of supply focused on oil (since Canada is self-sufficient in natural gas and electricity and enjoys stable import-export patterns in coal trade). Oil imports to Canada's eastern markets are subject to uncertainties as to price and availability of supply. The NEP aimed to expand domestic oil supply by accelerating exploration, development and production of oil from such sources as the Western Canadian oil sands and the offshore regions of northern and Atlantic Canada. The NEP also sought to reduce oil demand by encouraging conservation through a system of "off-oil" initiatives and incentives. The overall objective of security of supply was to be achieved by eliminating oil imports by 1990, in order to "dissociate Canada from the world oil market of the 1980s".[3]

The objective of "fairness" in energy pricing and revenue sharing was the federal government's means of protecting consumers from high world oil prices and of stating its claim to a considerably larger share of petroleum revenues. The blended price of crude oil paid by consumers would rise substantially but would not be allowed to exceed 85 percent of the world oil price. Higher prices would increase the federal government's share of petroleum revenue, which amounted to about 9 percent of production income in 1979. This share was considered insufficient "to support national energy initiatives and broad economic management responsibilities – to cushion individual Canadians from the adverse economic effects, to facilitate industrial adjustment and to see that fair play is done".[4]

The federal government estimated that, as a result of the fiscal regime of the NEP, the federal share of oil and gas revenue would rise to 26 percent during the period 1980-83.[5] This meant, of course, that provincial and industry revenue shares would have to drop, the former from 50 percent in 1979 to 41 percent during 1980-83, the latter from 41 to 33 percent.

---

vol. 1, *Politics and Policy* (Kingston, Ont.: Queen's University, Institute of Intergovernmental Relations, 1981), p.7.

3. Department of Energy, Mines and Resources, *The National Energy Program* (Ottawa: Supply and Services Canada, October 1980), p. 7.
4. *Ibid.*, p. 14.
5. *Ibid.*, p. 108.

The objective of increased Canadian participation in the petroleum industry was to be met through a multi-faceted attack on foreign-ownership. The NEP declared a principal objective to be 50 percent Canadian ownership of oil and gas production by 1990, as compared to approximately 27 percent in 1980. The most direct means of achieving this goal was to be through federal government acquisition of "several of the large foreign-owned firms".[6] The federal government also retroactively claimed a 25 percent interest in every existing or new discovery on federally-owned Canada Lands, and required a minimum of 50 percent Canadian participation before production could be approved. The NEP introduced a system of exploration grants through the Petroleum Incentive Program (PIP) which favoured Canadian-owned firms. On provincial lands, the proposed exploration grants were 35 percent of costs for companies more than 75 percent Canadian-owned, 10 percent for companies 50 to 75 percent Canadian-owned and zero for companies less than 50 percent Canadian-owned. On Canada Lands the corresponding grants were at rates of 80 percent, 45 percent and 25 percent respectively.[7] This was a powerful incentive for Canadianization, since it made prospective oil and gas developments considerably more valuable to Canadian-owned firms than to foreign-owned firms.

Reaction to the National Energy Program

The main groups most affected by the NEP, aside from the federal government, were the governments of the producing provinces, the petroleum industry, and oil and gas consumers.

Premier Lougheed of Alberta denounced the program as "an outright attempt to take over the resources of this province" and claimed that the policy was arbitrary and discriminatory.[8] The government of Alberta found many features of the NEP objectionable. Wellhead prices for conventional oil were fixed unilaterally by the federal government at less than half of the international market value for several years and were to be allowed to increase by less than the projected rate of inflation. Domestic natural gas prices were fixed at lower levels than proposed by the Alberta government. Alberta felt that the federal export tax on natural gas would further reduce the market potential of Alberta gas in the U.S., and that the domestic wellhead tax on natural gas was an infringement of provincial jurisdiction. The federal production tax on oil and gas revenue (PGRT) failed to take sufficient account of provincial royalties. Finally, it was feared that the 'discriminatory' PIP grants, favoring exploration on Canada Lands, would discourage resource exploration and development on

6. *Ibid.*, p. 49.
7. *Ibid.*, p. 40.
8. Alberta, Department of Federal and Intergovernmental Affairs, *Eighth Annual Report to March 31, 1981* (Edmonton, April 1982), p. 24.

provincial lands.[9] The Ministers of Energy of Alberta, Saskatchewan and British Columbia met in December 1980 and, following their meeting, issued a statement which criticized the NEP for creating a crisis for Canada's energy security.

The reaction from the petroleum industry was almost totally negative. Both Canadian and foreign-owned companies argued that "netbacks" from oil production (the revenue left to the producer after all taxes, royalties, transportation and operating costs are subtracted) were insufficient to provide the cash flow to finance the capital investment needed to reach oil self-sufficiency by 1990. In addition, the foreign-owned companies took exception to the policy of tying exploration grants to the level of Canadian ownership. Both the domestic and the foreign-owned oil companies objected strongly to the retroactive nature of the federal claim to a 25 percent interest on all existing discoveries on Canada Lands.

Consumers, on the other hand, benefited from the NEP both because it promised to hold Canadian oil prices well below world oil prices and because it subsidized conversion to alternative energy sources.

The Impasse

Using the powers available to it, Alberta announced that until provincial concerns were resolved in negotiations with the federal government, Alberta would reduce its crude oil production and withhold approval for two major oil sands projects – Imperial Oil's Cold Lake oil sands project and the Alsands project led by Shell Canada.

The production cutbacks, totalling 180,000 barrels per day (bpd) or 15 percent of Alberta production, were to be phased in. A 60,000 bpd cutback was scheduled for 1 March 1981, with additional cutbacks of the same amount following on 1 June and 1 September 1981. At the time, the cutbacks implied that Canadian consumers would have to replace domestic crude oil, at a wellhead price of Can. $17.75 per barrel, with imported oil then being landed in Montreal at about Can. $38 per barrel.

Withholding approval on the oil sands projects was an important bargaining chip for the Alberta government. These huge projects were each estimated to cost about $10-12 billion and involved thousands of construction jobs in Alberta and manufacturing jobs in Eastern Canada. In addition, the oil sands developments were seen to be essential in attaining the federal government's oil self-sufficiency objective. Since the project construction period was at least seven years, any lengthy delays threatened the 1990 self-sufficiency target date.

9. *Ibid.*, pp. 24-25.

Several economic studies of the impact of the energy impasse were published early in 1981. All of them concluded that the failure of the federal and Alberta governments to sort out their differences was extremely costly to Canadians.[10] These studies, as well as other observers, recognized that wellhead prices for crude oil and natural gas higher than those allowed under the NEP were one essential element of a compromise solution to the impasse. Agreement on higher prices, however, was not by itself sufficient to break the deadlock. The Alberta government and the federal government were locked into a political battle over who would control Canadian energy policy. In specific terms, the two levels of government had to reach agreement on constitutional issues of resource ownership and control, the distribution of windfall gains (economic rents) from oil and gas production, the appropriate fiscal regime for the petroleum industry, and the process of formulating energy policy in Canada.

The Canadianization Spree

Although the energy impasse increased the uncertainty associated with oil and gas investment, the incentives for Canadianization of the oil and gas industry proved irresistible. True to its promise in the NEP, the federal government, through Petro-Canada, moved to acquire a large foreign-owned oil company.

The February 1981 takeover of Petrofina for $1.45 billion sparked a flurry of acquisitions of foreign-owned petroleum companies by Canadian firms for amounts totalling $6.6 billion between February and July.[11] Late in July, strong downward pressure on the Canadian dollar forced Finance Minister Allan MacEachen to intervene by requesting Canadian chartered banks to reduce their lending to finance takeovers involving outflows of capital funds from Canada.[12]

In the twelve months following the Minister's intervention, additional acquisitions of foreign controlled petroleum companies, valued at $1.1 billion, took place. In addition to the acquisitions made by Crown corporations, twelve other Canadian companies purchased foreign-owned oil and gas companies.

10. J. F. Helliwell and R. N. Macrae estimated that if the cutbacks lasted throughout 1981, losses to all parties would be $1.5 billion, rising to $3.2 billion (1981 dollars) in 1985. See "The National Energy Conflict," *Canadian Public Policy* 7 (Winter 1981): 18. K. D. Boydell and M. C. McCracken estimated current dollar GNP to be reduced by $1.1 billion in 1981, and projected a $4.7 billion decrease in 1982 if the impasse continued. See *Impact on the Canadian Economy of the Energy Policy Impasse and Benefits of a Possible Compromise* (Ottawa: Informetrica Limited, March 1981).
11. Department of Energy, Mines and Resources, *The National Energy Program: Update 1982* (Ottawa: Supply and Services Canada, 1982), p. 48 (hereafter cited as *NEP: Update 1982*).
12. "Curb Loans for Buying Foreign Firms, Bankers Told," *The Globe & Mail* (Toronto), 30 July 1981.

These acquisitions were financed almost entirely by floating rate loans issued by Canadian chartered banks. Since U.S. dollars were required to pay the foreign owners, these funds had to be borrowed by the Canadian banks. This meant that the takeovers simply resulted in a replacement of foreign direct investment with an almost equal increase in foreign debt.

The wave of Canadianization also had significant repercussions for Canada-U.S. relations. Canadian takeovers of U.S. companies caused a well-publicized furor in the U.S. Congress. Members of Congress perceived Canadian companies as having a free licence to "raid" U.S. businesses, while U.S. corporations faced the regulatory obstacles of FIRA in their Canadian acquisitions and ownership changes. They were also angered by the ease and extent of the financing made available by the Canadian banks for the acquisition of U.S. companies, when U.S. firms were unable to obtain the same terms from U.S. banks for their acquisitions. Seven legislative measures were proposed by Congress in response to the NEP; these included bills denying Canadian companies access to federally-controlled U.S. lands, measures to remove the U.S. tax provisions aiding the financing of foreign takeovers, and a bill imposing a nine-month moratorium on investments by Canadian corporations in the U.S. energy sector.[13]

Solution to the Impasse

By the summer of 1981 both the federal and Alberta governments were under heavy pressure to resolve the costly impasse. Activity in the Alberta petroleum industry was down sharply as a result of the oil production cutbacks, a growing surplus of natural gas, and the negative impact of the new NEP taxes on industry cash flow. Industry representatives from both foreign- and Canadian-owned companies assailed the NEP and the subsequent failure of Ottawa and Alberta to reach agreement. The reduction in cash flow for many Canadian-owned companies left them unable to take advantage of the generous new incentives for frontier exploration. The foreign-owned companies complained that the uncertainty generated by the impasse made investment planning impossible, particularly for oil sands projects. The Canadian Petroleum Association forecast a 25 percent decline in exploration and development in 1981.

Federal and provincial officials eventually reached agreement on assumptions about future international oil prices and the likely paths of Canadian demand and supply of oil and natural gas. Both governments found that under the agreed assumptions, significantly higher government revenues would be generated if wellhead prices for domestic crude oil were moved more rapidly

13. Stephen Clarkson, *Canada and the Reagan Challenge* (Ottawa: Canadian Institute for Economic Policy, 1982), pp. 33-34.

toward a ceiling of 75 percent of the international price. Ottawa saw a possibility of receiving billions of dollars of extra revenue, a good portion of which could be used to reduce the federal government deficit. Alberta recognized that it could protect its own royalty rate levels if the federal government were satisfied that the fiscal regime provided fairness in the distribution of energy revenues.

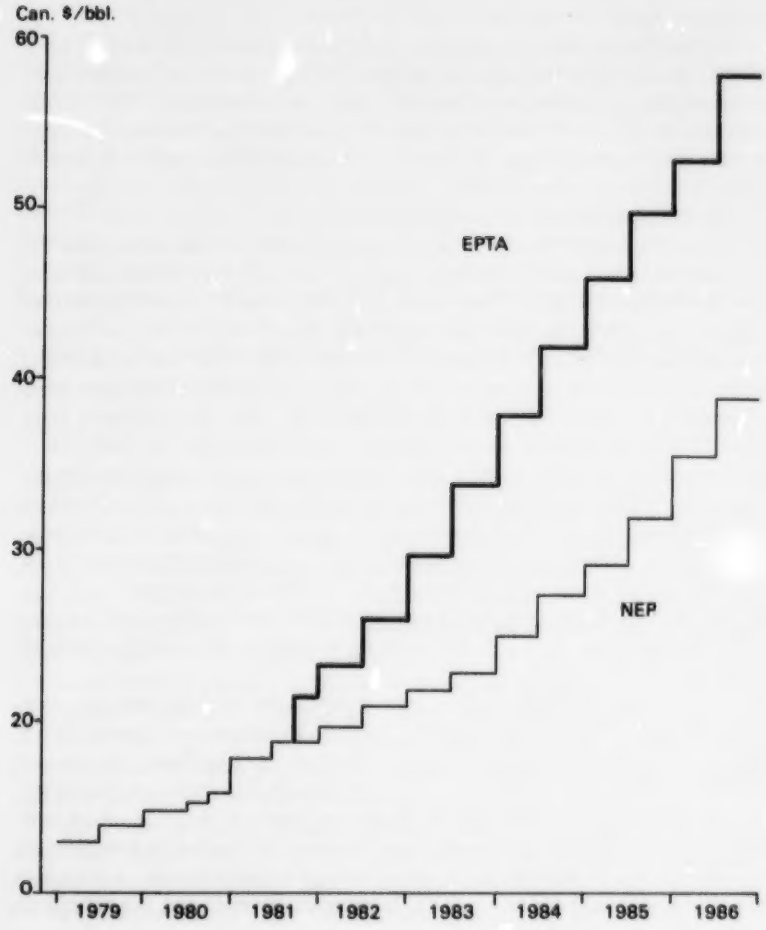
The fact that Canadian wellhead prices were well below both the world price and the prices proposed by the Conservative government in 1979 provided room to manoeuvre to secure a settlement. Thus, on 1 September 1981, Prime Minister Trudeau and Premier Lougheed signed the Canada-Alberta Energy Pricing and Taxation Agreement (EPTA), to remain in effect until the end of 1986.[14]

The principal features of the agreement were:

- *Higher Petroleum Prices.* A two-tier pricing structure was established for conventional crude oil in which the price of "old oil" was to be raised from $18.75 per barrel to $25.75 per barrel by 1 July 1982; thereafter the price to increase by $4.00 per barrel every six months, instead of by $1.00 per barrel as was proposed in the NEP (Figure 1). A "cap" was established to limit the producer price of old conventional oil delivered in Montreal to 75 percent of the delivered cost of equivalent foreign oil. Secondly, a New Oil Reference Price (NORP) was established; this essentially offered producers of "new oil", discovered after 1 January 1981, 100 percent of the cost of equivalent foreign oil. As in the NEP, crude oil users would pay a blended price for all oil based on the old oil wellhead price plus transportation charges plus a petroleum compensation charge. The blended price was expected not to exceed 85 percent of the international price when the 75 percent cap for old oil was reached.
- *Natural Gas Price.* In order to encourage substitution away from oil, the price of natural gas was to be limited to 65 percent of the equivalent price of crude oil.
- *Tax Changes.* Several changes were made to the NEP tax structure (see Appendix A). The Petroleum and Gas Revenue Tax (PGRT) was raised from 8 percent to an effective rate of 12 percent. While the tax on exported natural gas was set at zero, the Natural Gas and Gas Liquids Tax (NGGLT) was raised relative to the NEP to establish the 65 percent parity with crude oil. A new Incremental Oil Revenue Tax (IORT) was introduced by the federal government; this was set at a 50 percent rate on the difference between the old oil price and the NEP price, each net of royalties. Incremental revenue was not subject to corporation income taxes.

14. *Memorandum of Agreement between The Government of Canada and The Government of Alberta relating to Energy Pricing and Taxation*, 1 September 1981 (hereafter cited as *Memorandum of Agreement*).

FIGURE 1: **Oil Wellhead Price[a], NEP and EPTA**



[a]Old Conventional Oil

Sources: *National Energy Program*, p. 26; Memorandum of Agreement, p. 2.

• *Incentives Program Administration.* It was agreed that the Petroleum Incentives Program (PIP) would be adminstered and paid by the Government of Alberta for qualifying investments within the province. The federal government would administer the program in other parts of Canada while, at the same time, setting the incentive rates and rules for ownership and control for all of Canada.

Both parties to the agreement claimed victory, and a single set of agreed-upon revenue-sharing estimates was released to the press, claiming that $212 billion of petroleum revenues would be shared during the period 1981-86. Alberta claimed victories in energy pricing and in its fight against the export tax on natural gas; Ottawa, however, did not drop its claim of constitutional jurisdiction to levy such a tax. For its part, also citing the agreement as a victory, Ottawa claimed that the federal government's share of total revenues from oil and gas production would be 25 percent over the course of the agreement; this, according to Energy Minister Lalonde, would ensure "that the government of Canada has the revenues necessary to discharge its responsibilities for national energy management".[15]

Because of the complexity of the agreements, reaction from industry was delayed. Indeed, several days were required before industry analysts could gauge the impact of the EPTA on industry profitability. When the calculations were complete, most industry representatives and independent financial analysts rejected Mr. Lalonde's claim that, "Industry gets the money it needs to get on with the job".[16] Both the Canadian Petroleum Association, which represents the larger, foreign-owned companies, and the Independent Petroleum Association of Canada, representing smaller Canadian-owned oil and gas firms, argued that producer netbacks – the portion of the price left to producers after all taxes, royalties, transportation and operating costs are subtracted – were actually lower under the EPTA than under NEP. In spite of the much larger increase in prices allowed in the September agreement, the higher PGRT, the new IORT, and increased provincial royalties more than offset the favorable impact on cash flow of the price increases for conventional oil.[17]

Whereas oil market participants had been expecting some immediate improvement in cash flow, the reverse had occurred. The blow, however, was softened to some extent by the calculation that, from 1983 through 1986, projected oil netbacks would be higher under the EPTA than under the NEP.[18]

15. Department of Energy, Mines and Resources, *Communiqué*, 81/122, 1 September 1981, p. 3.
16. *Ibid.*
17. Department of Energy, Mines and Resources, *Background Information on Alberta-Canada Energy Agreement*, 14 September 1981 (hereafter cited as *Background Information*). Netback estimates from CPA and IPAC were lower than those of EMR but all estimates showed an initial deterioration relative to the NEP.
18. Old oil netbacks as calculated by EMR were expected to be 8% higher than under the NEP in

Further, industry representatives felt that the price for new oil (NORP), which generated a producer netback of $17.00 per barrel in 1982, was sufficient to provide a good incentive for continued exploration.[19]

As for natural gas, not only would the netback in 1982 be lower than that provided in the NEP, it was projected that this situation would persist through to the end of 1986.[20] Companies which produced mainly natural gas were already facing a severe "shut-in" problem because market expansion had not kept pace with production capacity. Consequently, gas producers claimed that they were placed in an even more difficult situation than had been the case under the NEP.

Following the Agreement, energy policy issues were accorded much less public attention; there were, however, several important developments. In the months immediately after, similar agreements were concluded with governments of British Columbia and Saskatchewan.[21] In March 1982, an accord was reached with the government of Nova Scotia regarding management of offshore resources. Meanwhile, change was occurring elsewhere. Canadian energy prices and the taxes incorporated in the EPTA are very sensitive to movements in the price of imported oil. As these agreements were being finalized, a significant weakening in world oil prices was already underway.

World Oil Market Developments

The NEP was fashioned in the aftermath of the second sharp increase in world oil prices precipitated by the Iranian revolution in 1979-80. The uncertainties associated with the political situation in Iran triggered panic buying and stockpiling of crude oil in the industrial countries. The average price of foreign oil imported by Canada jumped from $12 (Canadian) per barrel in 1978 to $24 per barrel in 1979, and then to $38 per barrel at the time of the NEP.

In 1980, the power of the OPEC cartel to manipulate world oil prices seemed unlimited. Consequently, a basic assumption built into the NEP was that international crude oil prices would continue to increase at a rate exceeding the general level of inflation. Within six months of the introduction of the NEP,

---

1983 and 16-20% higher from 1984 to 1986. The EMR netbacks assumed that the 75 percent cap would not be reached until 1986. However, if world oil prices do not rise the cap will be reached in 1983.

19. More recently, industry representatives have suggested that, even with NORP, new oil wells are not cash bonanzas. The average NORP well so far produces less than 30 bpd, the minimum output required to pay back a $1 million exploration and development cost (based on remarks by D. R. Brundrit, Shell Canada Resources Ltd., reported in *Oilweek*, 19 July 1982, p. 16).

20. Department of Energy, Mines and Resources, *Background Information*, op. cit.

21. In the remainder of this text the energy pricing and taxation agreements between the federal government and the three western producing provinces are referred to as the EPTAs.

however, it became evident that world oil markets were beginning to adjust and oil prices beginning to drop.

Although both oil demand and supply are slow to respond to changes in price, over the medium to longer term these responses are sizeable. Between 1972 and 1981, international oil prices increased tenfold. The real price of oil (after adjusting for inflation) has increased by nearly 500 percent; the rise however, has been erratic, with most of it being accounted for by sharp price increases in the periods 1973-74 and 1979-80.

Following the first of these shocks, oil prices increased from 1974 through 1978 by less than the general rate of inflation; this resulted in a steady erosion in the real oil price, and so lessened the incentive to conserve energy and to develop new high-cost supplies. The sharp price increase in 1979-80, however, had two important consequences. First, consumers were apparently convinced that oil would remain a high cost energy source; this realization spurred conservation measures and switching to alternative fuels. Second, reflecting the difficult energy cost adjustment faced by the industrial countries, the international economic recessions of 1980 and 1982 resulted in reduced oil use. Decline in oil demand has been striking. Excluding communist areas, world demand has declined from a peak of 53 million bpd in 1979 to 45 million bpd in 1981.[22] A drop of two or three million bpd was expected in 1982.[23]

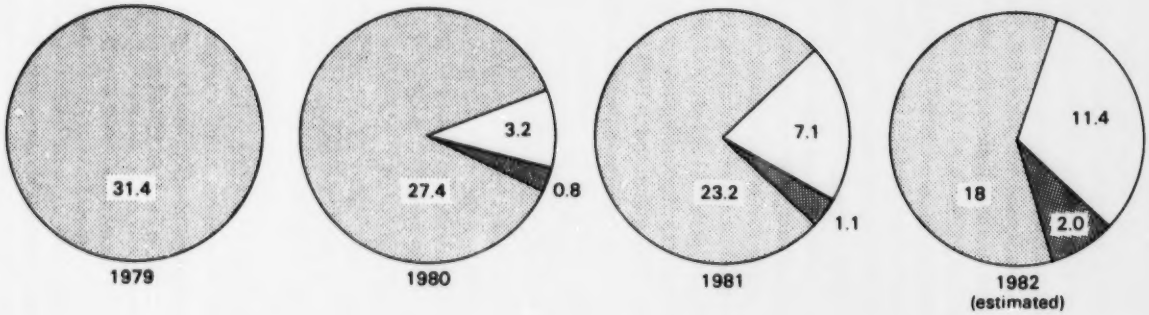
On the supply side, oil production in the non-communist, non-OPEC countries increased from 18 million bpd in 1978 to 21 million bpd in 1981. A further increase of about one million bpd was expected in 1982. Past episodes of supply interruptions and sudden price hikes have led consuming nations to treat OPEC as a residual or swing supplier in the world oil market. Consequently, reductions in total oil demand and increases in non-OPEC production both cut directly into demand for OPEC oil. The drop in demand of 11 million bpd since 1979, combined with the increase in non-OPEC production of 2 million bpd, had together reduced demand for OPEC oil by 13 million bpd by 1982. This decline amounts to a reduction in demand from about 31.4 million bpd in 1979 to a projected 17-18 million bpd in 1982 (Figure 2).

There have also been significant price changes. In early 1981, Saudi Arabia engineered an oil glut by maintaining production at 10 million barrels a day in the face of declining demand. Premiums being charged by some OPEC members were eliminated. As a result, the effective average price of OPEC oil dropped from U.S. $36 a barrel in January to U.S. $34 a barrel by September.[24]

22. British Petroleum Company, *BP Statistical Review of World Energy 1981*,(London,1982), p. 21.
23. "The Implications of Falling Oil Prices," *World Financial Markets* (Morgan Guaranty Trust Company of New York), March 1982, p. 2.
24. "The OPEC Surplus," *World Financial Markets* (Morgan Guaranty Trust Company of New York), September 1981, p. 8.

FIGURE 2: Why Demand for OPEC Oil Is Falling:

Worldwide Demand for Oil is Falling
and Non-OPEC Supply of Oil is Increasing



Source: *BP Statistical Review of World Energy*

The Saudis moved forcefully to support the official price of U.S. $34 a barrel, cutting production to between 6 and 6.5 million barrels a day.[25] Spot prices for Saudi Arabian crude oil, however, averaged just over U.S. $31 a barrel in the second and third quarters of 1981, thus increasing the pressure for discounts or outright cuts in official selling prices. Total OPEC production dropped from an average 23.5 million barrels per day in 1981 to an estimated 17.5 million barrels per day during the first half of 1982, when crude oil prices, which had firmed towards the end of 1981, were again under downward pressure. By March 1982, the average spot price for Saudi Arabian crude oil had dropped to U.S. $28 a barrel. Spot prices firmed again in the summer of 1982, and remained around the U.S. $31-$32 per barrel range for the remainder of the year.

With the recession dragging on and conservation efforts continuing, the short-term outlook for world crude oil prices is for continued weakness. There is now an increasing possibility that the OPEC cartel will weaken, at least temporarily, as individual members, committed to ambitious development plans, are forced to exceed their production quotas. This could lead to further price discounting and additional pressure on the OPEC pricing structure. The medium- to long-term oil price outlook is highly uncertain. By mid-1982, it was clear that continuing increases in oil prices were no longer inevitable over the medium-term. If anything, however, uncertainty about future oil prices has increased. Serious political upheaval in the Middle East could result in another sharp price increase.

The uncertainty surrounding future oil price trends is evident in two contrasting pricing scenarios.

William M. Brown, of the Hudson Institute, argued in late 1981 that the long-term interest of OPEC would be better served by an oil price as low as U.S. $25 per barrel in 1981 dollars.[26] At such a price level, most of the high-cost energy developments in non-OPEC areas would probably be deferred or cancelled.

This lower price, Brown argued, would improve economic activity in the industrial countries and thereby improve demand for OPEC oil. He suggested that oil prices might decline to U.S. $30 per barrel by mid-1983, and that such a price level might sustain demand for 21 million bpd from OPEC. Thereafter, oil prices could be increased by something close to the rate of inflation.

The second world energy price scenario, published by the Department of Energy, Mines and Resources (EMR) Canada, in May 1982, was based on a judgment that higher prices would prevail. In support of this judgment, EMR cited the decline of the world's conventional oil reserves, the basic dependence

25. "Market Trends," *Petroleum Economist*, May 1982, p. 208.
26. William M. Brown, "Can OPEC Survive the Glut?" *Fortune*, 30 November 1981, p. 90.

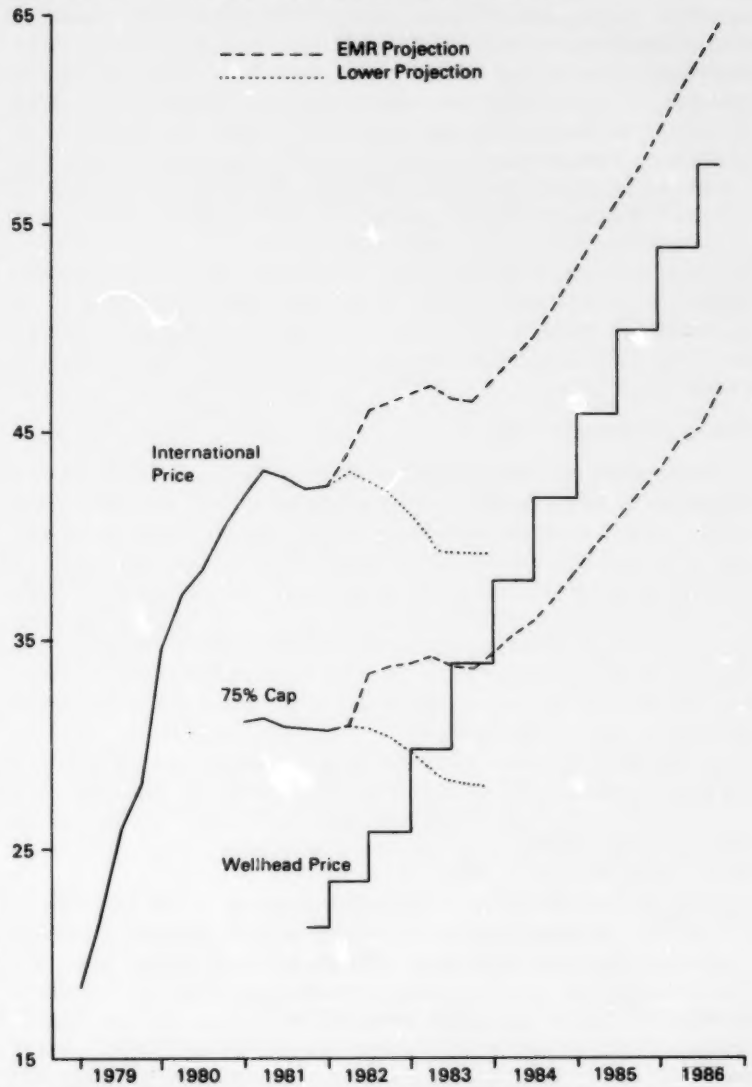
of the consuming countries' economies upon oil, and the inherent instability of the Middle East region. EMR concluded that it would be prudent to assume "the recent world price lull will be temporary".[27] On this basis, it was assumed that there would be no change in the benchmark world oil price from U.S. $34 per barrel before the end of 1982. Thereafter, the price was assumed to rise two percent annually after allowing for inflation. World oil prices were thus expected to increase from U.S. $34 per barrel at the end of 1983 to an average $43 per barrel in 1986, as compared with Brown's estimate of $35 per barrel for 1986.

The federal provincial energy agreements (EPTAs) were based on the assumption that, after allowing for inflation, world oil prices would increase from a base of U.S. $34-36 per barrel in 1981 by about two percent each year until 1986. With inflation expected to average about 10 percent a year, this implied nominal increases of 12 percent per year. By 1986, then, world prices were expected to reach $60-70 per barrel. However, by the end of 1982 projections indicated that crude oil prices were more likely to be in the range of $35-45 per barrel in 1986.

Although the relationship between domestic oil prices in Canada and international prices is quite complex, the changing international oil market is already affecting Canadian oil prices. There are separate pricing schedules for different categories of oil in Canada. The price of old, conventional oil, discovered prior to 1 January 1982, was to be increased until it reached 75 percent of the price of equivalent foreign oil. When the EPTAs were signed, it was anticipated that this cap would not be reached until 1986, by which time the Canadian wellhead price was expected to reach Can. $57.75.[28] Thus, until the cap was reached, the domestic wellhead price would reflect Canadian policy rather than movements in international oil prices. As a result of stagnation in world oil prices during 1982, however, price projections have been revised downward and, in May 1982, EMR expected that the 75% cap would be reached in July 1983 (Figure 3). As mentioned above, EMR projected higher oil prices than some other observers. If international oil prices decline in the first half of 1983, the federal government could be faced with a decision on rolling back the wellhead price of January 1983 in order to maintain it at 75 percent of the world price. In any event, and regardless of which forecast proves more accurate, in the absence of any further changes in the pricing regime, by mid-1983 the wellhead price of old, conventional oil in Canada will be determined by movements in international oil prices.

27. Department of Energy, Mines and Resources, *NEP Update 1982*, op. cit., pp. 10–12.
28. *Memorandum of Agreement*, op. cit., p. 2.

FIGURE 3: **Two Views of the 75 Percent "Cap"**



Sources: Energy, Mines and Resources, Canada; C.D. Howe Institute.

The New Oil Reference Price (NORP), effective 1 January 1982, applies to all new discoveries of conventional oil, all existing and new synthetic (oil sands) oil, and all oil from Canada Lands. It was anticipated in September 1981 that the NORP at the wellhead would initially be Can. $45.92, rising in scheduled steps to Can. $77.48 in July 1986.[29] However, a ceiling was placed on NORP so that it would not exceed 100 percent of the price of equivalent foreign oil. By 1 January 1982, world oil prices had already fallen below EMR's forecast for that date; accordingly, the NORP price had to be introduced at a level of Can. $44.17. On 1 July 1982, the NORP price was scheduled to increase by Can. $3.30. Instead, due to weak world oil prices, it dropped by almost Can. $3.00.

In an effort to ease the difficult financial situation of the Canadian petroleum industry in the first half of 1982, the federal government allowed all oil discovered between 1974 and 1981 to be priced at 75 percent of the world price as of 1 July 1982. Thus, prices for such oil are now also influenced directly by international oil prices.

Policy Changes in 1982

Developments in world oil markets since the signing of the EPTAs have fundamentally altered projections about energy pricing and investment opportunities. Stagnation and decline in oil prices beginning in mid-1981 significantly reduced profitability and cash flow of the petroleum industry world-wide. In Canada, the combination of declining petroleum demand and significantly higher taxes depressed petroleum industry cash flow in the period following the introduction of the EPTAs. The worsening in the industry's financial situation was so sudden and severe, in fact, that both the federal and provincial governments were induced to take actions which amounted to a retreat in their claim on energy revenues.

In April 1982, the government of Alberta announced a series of measures designed to pass on to the industry in the province an increased share of the benefits accruing to the province from higher wellhead prices. The package included royalty reductions and one-time grants valued at $5.4 billion over a five-year period.

In May 1982, the federal government released the *National Energy Program: Update 1982*, in which it introduced a series of fiscal measures to alleviate "short-term cash flow constraints" affecting some oil and gas firms. The measures, which the federal government claimed would reduce its revenues by $2 billion over a five-year period, included a reduction in the PGRT from 12 percent to 11 percent for a period of one year, an elimination of the IORT for one year, an increase in the wellhead price of conventional oil discovered after 1973 to 75 percent of the world price on 1 July 1982, an exemption of $250,000 on

29. *Ibid.*, p. 4.

PGRT liabilities, and a series of measures designed "to improve the position of higher cost sources of oil".

During the course of 1982, other measures designed to stimulate development of enhanced oil recovery were implemented by both Alberta and the federal government in recognition that petroleum industry activity would suffer if the tax regime were not amended in response to weakening petroleum prices.

The altered world price outlook continues to have significant implications for what has been referred to as the unchanging core of energy objectives introduced in the National Energy Program. In fact, as the discussion in following chapters will illustrate, the feasibility and even the desirability of achieving NEP objectives is called into question by stagnating world oil markets.

3

Assessing Canadianization

Canadianization – as reflected in the National Energy Program – may appear to have been good politics, at least to the extent that it contributed to the Liberals' return to power in 1980; there is mounting evidence, however, that it has been bad economics.

The expectation that energy prices would continue to increase through the 1980s seemed to indicate that significant long-term benefits would accrue to Canada if a larger proportion of the oil and gas industry were domestically owned and controlled. In fact, as this chapter indicates, it was not necessary to take over foreign-owned petroleum companies in order to increase petroleum benefits for Canadians. While new taxes and the regulations incorporated in the NEP succeeded in reducing the outflows of windfall profits and industrial benefits to foreigners, little, if any, additional benefit was obtained by the takeover of foreign companies. Indeed, such takeovers have been costly in terms of their impact on interest rates, on the exchange rate and on the financial health of acquiring (Canadian) firms.

The Benefits of Canadianization

When the federal government adopted the objective of reducing foreign ownership of the oil and gas industry to 50 percent by 1990, there was an assumption that the benefits of greater domestic ownership would justify the policy's cost. Policy-makers may have anticipated not only economic benefits, but possible political or social gains as well. Greater Canadian self-determination or improved opportunities for Canadian managers and workers might have resulted from the Canadianization policy; such potential benefits, however, are difficult to detect and impossible to measure. In any event, any assessment of the policy's possible social or political benefits must also take into account its likely *economic* costs and benefits as well.

The economic argument used to support the objective of Canadianization is based on the theory of "economic rent"; that is, the balance left after all costs of production, including a normal rate of return on capital, have been deducted from total revenues. Because this remaining balance is a kind of windfall profit, in theory taxing it will not affect the producer's decision about how much to produce.

In terms of oil and gas, "economic rent" is the difference between gross revenues and total exploration and production costs. The latter include depreciation, field operating expenses, overhead, transportation costs and an adequate return on risk capital. However, by virtue of the varying size and quality of their existing oil and gas pools, windfall gains are unevenly distributed among petroleum producers. This means that if uniform taxes are imposed on these gains, the production and investment decisions of some marginal producers will indeed be affected. Further, while windfall profits (or "economic rents") from oil production are distributed among owners, or shareholders, of the oil companies and provincial and federal governments, economic theory does not specify what share each claimant should receive; they must reach consensus on that through the political process.

The sharp increase in oil prices, imposed by OPEC in 1973-74 and 1979-80, opened up for Canadian oil producers the possibility of huge windfall profits if their oil were to be sold at world prices. There was intense political debate as to how these potential gains should be distributed. After the first OPEC price increase, the federal government adopted the objective of gradually increasing the Canadian oil price toward the world oil price; however, with 75 percent of the petroleum industry foreign-owned, it was not in Canada's national interest to raise the price of oil[1] since too much of the windfall gains would have flowed to foreign equity owners.[2] The problem could be solved either by increasing the level of Canadian ownership of the petroleum industry, or by adjusting the tax-royalty regime so that more of the economic rents went to governments instead of to the oil companies, or by doing both. In the NEP, the federal government chose to do both.

The fact, however, that the federal and provincial governments were able to secure a greater share of these windfall gains for Canadians through the tax-royalty system then raises the question of whether or not Canadianization of the industry was also justified. By way of such justification, the NEP provided a

1. Bank of Canada, *Annual Report*, 1981, p. 8.
2. Wilkinson and Scarfe estimated that, based on 1979 production levels and fiscal regime, for every $1 per barrel increase in world and Canadian oil prcies, rents of $138 million would accrue to foreigners each year. See B. W. Wilkinson and B. L. Scarfe, "The Recycling Problem," in Ontario Economic Council, *Energy Policies for the 1980s: An Economic Analysis*, vol. 1 (Toronto: O.E.C., 1980), p. 153.

four-part rationale:

- concern that rising oil prices would push up asset values of foreign-owned companies to levels that would make acquisitions by Canadians increasingly difficult and costly;
- fear that huge oil sands investments by foreign-owned companies would further increase their share of total oil and gas assets;
- desire that a larger share of the industrial benefits from large scale energy projects be obtained by Canadians than would occur if the degree of foreign control were unchanged. Studies have shown that foreign-owned companies tend to employ more foreign managers and to purchase a smaller portion of the required machinery, equipment and components in Canada than do Canadian owned firms;
- fear that, without significant change in ownership, foreign control of land on which oil and gas exploration takes place, as well as of the reinvestment of huge cash flows, would together increase the power of foreign-owned companies to dictate the level of priority to be accorded to, and the pace of development of Canada's energy resources.

By 1982, however, none of these four reasons was any longer convincing. First, the asset value of oil and gas companies around the world has dropped sharply since the onset of the 1981-82 recession, as oil prices have declined. In Canada, there has been a slight increase in the real book value of foreign-controlled companies; but book values are not necessarily the best measure of the acquisition cost of these companies. The Toronto Stock Exchange index of integrated oil companies, reflecting the market value of large, predominantly foreign-owned companies, dropped from a high of 3400 in mid-1981 to a closing value of 1720 in June 1982,[3] indicating that the acquisition cost of foreign-owned oil companies dropped significantly after mid-1981. This drop in market value of foreign-owned oil companies not only indicated that Ottawa's first concern was no longer compelling, but also suggested that the 1981 Canadianization takeovers were poorly timed. Canadian companies were induced by the NEP to make their acquisitions at what turned out to be the peak of the oil price boom. Selling companies were able to capitalize the value of generous Petroleum Incentive Program (PIP) grants into their selling prices. The combination of these factors suggests that the Canadianization incentives contained in the NEP led acquiring companies to over-estimate the value of foreign-owned oil assets.

Second concern relating to oil sands investments by foreign-owned companies obviously diminished in 1982. The cancellation of both the Cold Lake and Alsands projects was at least partly the result of reduced expectations for world

3. Toronto Stock Exchange, *Monthly Review*, various issues.

oil prices. There is, thus, no immediate risk that oil sands development will significantly increase foreign ownership in the Canadian petroleum industry. In fact, the NEP included a provision that, to be granted federal approval, production from Alberta oil sands required at least 50 percent Canadian participation; accordingly, oil sands development is likely to raise, not lower, Canadian ownership of the petroleum industry.

Third, while the federal government may have been justified in its desire that Canada achieve maximum industrial benefits from energy investment projects, this intention is now being addressed in other ways, and so suggests that Canadianization is not necessarily the only way of dealing with it. An Office for Industrial and Regional Benefits, set up by the federal government in 1981 "to ensure that Mega-Projects make maximum possible use of Canadian planning skills, project development ability, machinery and material supply capability and capacity for further processing of resources,"[4] will exert pressure on foreign-owned companies to maximize the input of Canadian goods and services in investment projects. In addition, the cancellation or deferral of many of the foreign-controlled major projects will allow more time for the development of Canadian skills and sources of supply.

The fourth concern relates to the federal government's desire to maintain sovereign control of energy and economic development. Energy has long been viewed as a strategic sector of the economy and, as such, special measures – not required in other sectors – were needed to ensure greater Canadian control and greater responsiveness to national goals. The benefit of increased sovereignity is a political rather than an economic calculation. If it is agreed that the strategic nature of the petroleum industry requires greater Canadian control, then the alternative methods of achieving the needed increase must be weighed according to their cost. Greater Canadian ownership is one way to increase Canadian control but, as is demonstrated later in this chapter, the cost is high.

The primary alternative to increased ownership is increased regulation. With the advent of the NEP, petroleum has become one of the most highly regulated industries in Canada. Its profitability and sources and uses of funds are monitored more carefully by the federal Petroleum Monitoring Agency than are those of any other industry. All major investment projects must meet the approval of federal and provincial regulatory bodies to ensure maximum benefit to Canada. Political pressure and moral suasion limit the ability of foreign-owned companies to diversify into less regulated non-petroleum businesses. Finally, complete government control over price setting and taxation means it is government, not the industry, which controls the distribution of energy revenue. Even without Canadianization through foreign take-overs, these other measures have strongly confirmed Canadian control of the strategic oil and gas industry.

4. Office of the Prime Minister, *Press Release*, 12 January 1982.,

In the final analysis, then, the benefits of Canadianization through the purchase of foreign-owned petroleum companies operating in Canada are limited. The economic argument, based on the retention of energy rent in Canada, does not necessarily point to the takeover of foreign companies. Instead, amendments to the tax regime provide a more direct and efficient method of securing petroleum rents for Canadians. Such amendments are already in place. The four-part rationale put forward in the NEP is no longer convincing.

Even in the absence of significant economic benefits, however, some Canadians may still favor reducing the level of foreign ownership for social or political reasons. In the following section, the economic costs of such a strategy are weighed.

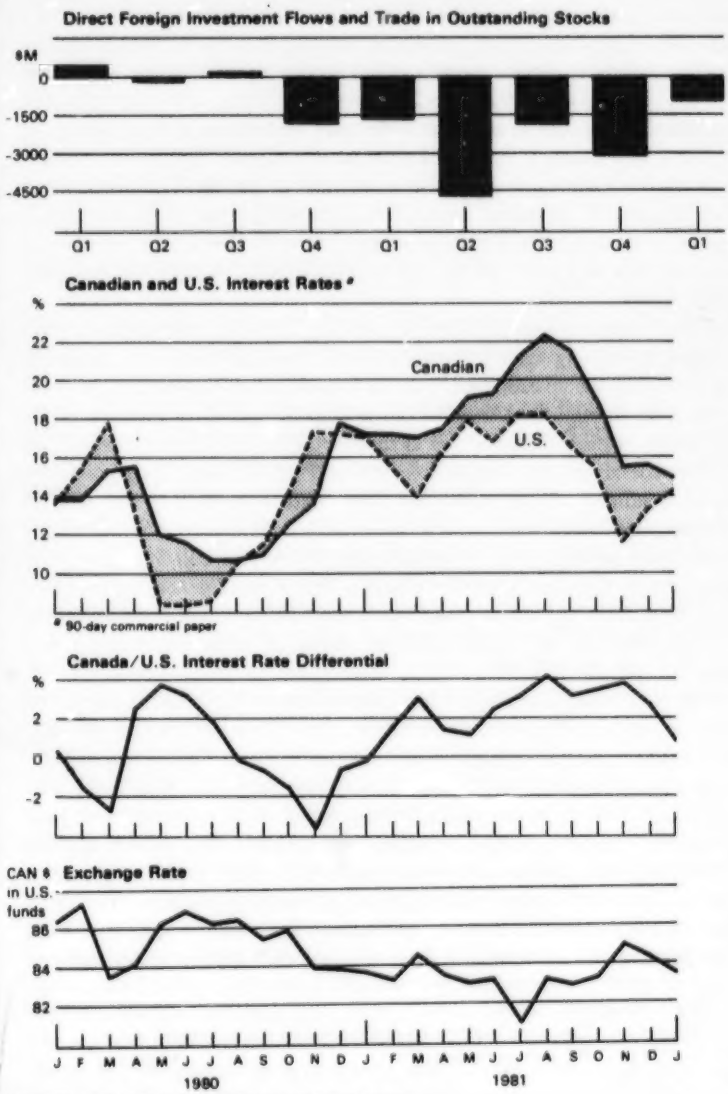
The Costs of Canadianization

Repatriation of foreign-owned petroleum assets has immediate implications for Canada's balance of international payments. Purchase of such assets located in Canada creates an investment outflow and eliminates an outflow of dividend payments. Financing of the purchase, however, may create other problems. Canadian companies financed their purchases of foreign-owned oil companies chiefly by borrowing funds from Canadian banks; these, in turn, borrowed in the U.S. financial market. The result was an inflow of short-term debt capital, and the creation of a new outflow of interest obligations, affecting both interest rates and the exchange rate.

Figure 4 illustrates the behavior of capital flows, Canadian and U.S. short-term interest rates, and the exchange rate in 1980 and 1981. Following a tightening of U.S. monetary policy in late 1980, Canadian and U.S. short-term interest rates were virtually identical at just over 17 percent. The Canadian dollar was trading in the range of U.S. $0.84-0.85. However, a sizeable capital outflow from Canada was already developing and, when U.S. interest rates began to decline in February, the month of the Petro-Canada takeover, a significant positive differential opened. Through the period February-December 1981 Canadian short-term rates exceeded U.S. short-term rates by an average of 2.6 percentage points, or 260 basis points. In August 1981, the peak differential of over 400 basis points was reached as the Canadian dollar dropped rapidly relative to its U.S. counterpart, reaching a low of U.S. $0.81 in that month.

It seems clear that Canadian acquisitions of foreign-owned oil companies, encouraged by the incentives of the NEP, were largely responsible both for the downward pressure on the Canadian dollar and the upward pressure on interest rates in the first half of 1981. According to the Governor of the Bank of Canada, downward pressure on the dollar in July and the increase in Canadian short-term rates required to moderate that decline, were the direct result of the wave of

FIGURE 4: **Capital Flows, Interest Rates and the Exchange Rate, 1980-81**



Source: *Bank of Canada Review*, various issues.

takeovers by Canadians of businesses in Canada owned by non-residents.[5]

An analysis carried out by the Economics Department, Bank of Montreal found that the takeovers weakened the Canadian dollar both because of the direct effect of the foreign investment outflows, and because the foreign interest payments required to service the debt would exceed the dividend payments that would have been made by the companies taken over.[6] The study estimated that if Canadianization were to continue at the pace established in the first half of 1981, there would have to be either a permanent decline in the Canadian dollar by U.S. $0.05 *or* an ongoing positive differential of 200 basis points between Canadian and U.S. short-term rates.[7] To restore equilibrium to the balance of payments, and pay for the acquisitions up to July 1981, would require an average annual reduction in Canadian consumption of $875 million per year over the next decade.[8]

These estimates indicated that the economic costs of rapid Canadianization were sizeable and long-lasting. Moreover, there were also both indirect costs, in terms of souring the investment climate in Canada, as well as direct costs paid by consumers through the Canadian Ownership Charge, a tax imposed on all consumption of oil and natural gas to finance takeovers of foreign petroleum assets by federal crown corporations such as Petro-Canada. Changes in the financial condition of the acquiring firms were also part of the cost of Canadianization.

It has been assumed that Canadianization would result in the creation of bigger, stronger Canadian-owned companies which would generate significant benefits for Canada. An investigation of the financial condition of private sector companies involved in Canadianization, however, does not support this assumption.

In 1981, according to published data, nine private sector companies acquired foreign-owned oil companies valued at a total of $7.2 billion. (Salient information about the acquiring companies is presented in Table 1.) The acquisitions were financed almost exclusively by floating rate long-term bank loans supplied by Canadian chartered banks. During the same 12-month period, total long-term debt of the acquiring companies increased by $9.2 billion because additional long-term debt was taken on by some to finance capital expenditures, exploration and development and other non-petroleum acquisitions. The sharp increase in long-term debt obtained at relatively high interest rates raised the interest expenses for the acquiring companies by $708 million. Since many of

5. Bank of Canada, *op. cit.*, p. 8.
6. Bank of Montreal, "Canadian Corporate Takeovers: Some Economic Impacts" (Montreal, 28 July 1981, mimeographed).
7. *Ibid.*, pp. 27–29.
8. *Ibid.*, p. 33.

TABLE 1

Financial Results for Acquiring Companies (Can. $ million)

	1980	1981	Change
Net income	337	288	−49
Cash flow	762	656	−106
Interest expense	375	1,083	708
Assets	7,720	18,284	10,564
Long-term debt	3,889	13,112	9,223
Shareholders' equity	2,504	3,507	1,003

SOURCE: Company annual reports and C.D. Howe Institute.

the takeovers occurred in June, this calculation reflects only a six-month period; it therefore understates the impact of the increased debt on annual corporate interest expenses. The increase would not be a cause for concern if the acquired assets generated sufficient additional revenue and cash flow. In 1981, this was not the case. Net income for the group declined from $337 million to $288 million and increased interest expenses exceeded the increase in cash flow before interest expense by more than $100 million.

Further evidence of the negative impact of Canadianization on the financial health of the acquiring companies is shown by rates of return, working capital ratios and debt-equity ratios for 1980 and 1981 (Table 2). In the space of one year, the financial condition of the acquiring companies deteriorated sharply in comparison with both other firms in the petroleum industry and firms in other industries as well. While the rate of return on shareholders' equity fell for all industries, the drop from 18.4 percent to 6.1 percent for the acquiring companies was far more severe. On the basis of rate of return on capital employed, which includes both equity and long-term debt, the performance of the acquiring companies was even poorer relative to other industry groupings.

The working capital ratio, a measure of corporate liquidity focusing on a firm's ability to pay its short-term debts, declined sharply for the acquiring companies in 1981 but only marginally for total industry. For other petroleum companies this measure of corporate liquidity rose in 1981.

The ratio of long-term debt to equity, which measures both a company's leverage and its credit worthiness, usually does not exceed a value of 1.0 in a financially healthy corporation. The average for Canadian corporations is about 0.5. In 1980 the acquiring companies, with a debt-equity ratio of 1.46, were already highly leveraged. But the massive bank borrowing undertaken by this group in 1981 pushed its debt-equity ratio to 3.57. The credit worthiness of these firms became very poor. More seriously, however, they became so highly

TABLE 2

Selected Financial Statistics for Acquiring Companies and All Industries

	Return on Equity[a]	Return on Capital Employed[b]	Working Capital Ratio[c]	Debt-Equity Ratio[d]
Acquiring companies				
1980	18.4	7.5	1.28	1.463
1981	6.1	1.3	1.00	3.573
Other petroleum companies				
1980	19.3	14.4	1.84	0.345
1981	12.2	9.1	1.96	0.339
All industries				
1980	19.3	12.9	1.56	0.497
1981	14.6	9.0	1.51	0.628

[a] Net Income before extraordinary items as percentage of shareholders' equity.
[b] Net Income before extraordinary items as percentage of shareholders' equity plus long-term debt.
[c] Ratio of short-term assets to short-term liabilities.
[d] Ratio of long-term debt to shareholders' equity.

SOURCE: Statistics Canada, Industrial Corporations Financial Statistics, Cat. 61-003, Fourth Quarter, 1981 and Company annual reports.

leveraged that further declines in corporate earnings could jeopardize continued operation.

The Canadianization effort of the NEP has encouraged increased leverage on the part of Canadian-owned companies. Faced with a need to fund an expansion or acquisition, Canadian companies can issue equity or borrow. Canadian capital markets have a limited capacity to absorb large equity or debt issues. The concern of companies for their Canadian ownership status, which enables them to qualify for generous PIP grants, at the same time precludes them from tapping foreign capital markets for new equity. Instead, such companies are encouraged to opt for the most readily available form of debt finance, that is, bank loans. Thus, the Canadianization incentives encourage increased leverage and the associated vulnerability.

Summary

The NEP's goal of Canadianization was to reduce foreign ownership of the Canadian petroleum industry to 50 percent by 1990. In May 1982, the federal government claimed that, "While there is considerable distance to go, the [Canadianization] program has been enormously successful."[9] This claim was

9. Department of Energy, Mines and Resources, *The National Energy Program: Update 1982* (Ottawa: Supply and Services Canada, 1982), p. 87.

based on the reduction in foreign ownership, within an 18-month period, from 72 percent of total oil and gas production revenue to 65.3 percent.

The analysis presented in this chapter, however, raises serious doubts about the desirability of increasing Canadian ownership through takeovers. The arguments that suggest long-term economic benefits will accrue to Canadians are unconvincing, since other policy initiatives, such as new taxes and government regulations of future development, have already secured for Canadians the benefits that were promised.

The analysis indicates that Canadianization has involved significant costs. The 1981 takeovers put downward pressure on the Canadian dollar, raised interest rates and, further, will impose continuing costs on Canadians as equilibrium in the balance of payments is restored.

The financial health of the Canadian-owned segment of the petroleum industry has been badly weakened by Canadianization takeovers financed by bank loans. Indeed, the financial health of the Canadian banks themselves has been affected by huge loans to oil and gas companies, some of which have had difficulty in making interest payments. The acquiring companies have, in some cases, become potential wards of the state; that is, Canadian taxpayers may now be called upon to finance Canadianization acquisitions made by private companies, just as they were in connection with takeovers by Petro-Canada and the Ontario Energy Corporation.

4

Achieving Energy Security and Fairness

In the complex world of decision-making, where economic policies are often designed to achieve more than one objective simultaneously, policy conflicts often occur. The NEP was no exception.

The objectives of energy self-sufficiency and fairness in sharing of oil revenue were believed to be compatible at a time when it was assumed the price of foreign crude oil would rise to $60–70 per barrel by 1986. By the end of 1982, however, when it was thought the price of oil might only reach $35–45 per barrel by 1986, these two objectives were clearly in conflict. Unless the revenue-sharing agreements could be modified, revenue shortfalls would hamper attempts by the petroleum industry to achieve the production levels required for self-sufficiency.

Energy Security

Energy self-reliance as a policy goal is broadly accepted in Canada by groups with widely divergent interests. However, achievement of this objective does present some problems, as Professor John Helliwell of the University of British Columbia has pointed out:

> If [the goal of self-reliance] means that Canadian energy needs should be met to the maximum extent possible from Canadian sources and that Canadian energy resources should be devoted to meeting Canadian needs, then it involves considerable potential for inefficient use of resources.[1]

Making oil self-sufficiency a top priority for energy policy was a significant departure from earlier statements by the federal government. In 1973, the Department of Energy, Mines and Resources (EMR) listed among the goals of energy policy,

1. J. F. Helliwell, "Canadian Energy Policy," *Annual Review of Energy* 4 (1979): 225.

> allowance of the acquisition of energy supplies from abroad, where these are more economic than domestic supplies, provided that such imports do not unduly inhibit Canadian development or present a serious security risk.[2]

This statement recognized that, under certain circumstances, importation of energy supplies was in the national interest. At the time of the NEP, the outlook for international energy market conditions was dominated by concerns about supply interruptions and unanticipated price increases. But these fears subsided considerably in the two years following the introduction of the NEP, so decreasing the urgency of oil self-sufficiency.[3] Continued pursuit of oil self-sufficiency by 1990 without regard to changing costs and benefits may result in the development of high cost energy sources without economic justification.

As the rationale for oil self-sufficiency has weakened, so too have prospects for attaining the goal.

At the time of the NEP, Canada was importing crude oil at a rate of 425,000 bpd to supply the Atlantic provinces and part of Quebec. At the same time, about 210,000 bpd of Western Canada crude oil production was being exported to the U.S. The NEP proposed to eliminate oil imports by 1990 by implementing programs aimed at reducing demand and by providing incentives to expand domestic supply.

On the demand side, the goal of the NEP was to reduce the use of oil in each of the residential, commercial and industrial sectors to no more than 10 percent of total energy used in those sectors. Programs to provide incentives and the necessary infrastructure to facilitate conservation and a shift to other energy sources were implemented by the federal government. It was expected that these measures would reduce Canadian oil demand from 1.8 million bpd in 1979 to 1.5 million bpd in the 1990s.[4] At the time, this appeared to be an ambitious objective, since the Canadian economy was expected to grow at an average annual rate of about 3 percent, after allowing for inflation.

On the supply side, because conventional oil production from Western Canada was expected to decline, the NEP was designed to increase oil supply by, first, establishing attractive prices for new supplies, second, establishing the Petroleum Incentive Program (PIP), and, third, providing the industry with

2. Department of Energy, Mines and Resources, *An Energy Policy for Canada Phase I*, vol. 1, *Analysis* (Ottawa: Information Canada, 1973), p. 53.
3. The International Energy Agency has recently expressed concern that declining real oil prices will reduce the incentive for industrial countries to become less reliant on foreign oil, thereby leaving them vulnerable to disruptions in the 1980s and 1990s. See Organisation for Economic Co-operation and Development, International Energy Agency, *World Energy Outlook* (Paris: O.E.C.D., 1982), p. 13.
4. Department of Energy, Mines and Resources, *The National Energy Program* (Ottawa: Supply and Services Canada, October 1980), p. 98.

the necessary cash flow to find and develop additional oil.[5] These policies were expected eventually to reverse the decline in Canadian oil production, with production of 1.6 million bpd in 1979, dropping to 1.35 million bpd in 1985 but then climbing to 1.5 million bpd by 1990. The emphasis was placed on increasing oil sands production. The Cold Lake and Alsands synthetic oil plants were to be encouraged by an offer that once oil production came on stream, it would be sold at the existing world price of October 1980 (Can. $38 per barrel) adjusted for changes in the Consumer Price Index or the world oil price then prevailing, whichever was the lower. It was expected that these two plants could be producing 120,000 bpd each by 1987.

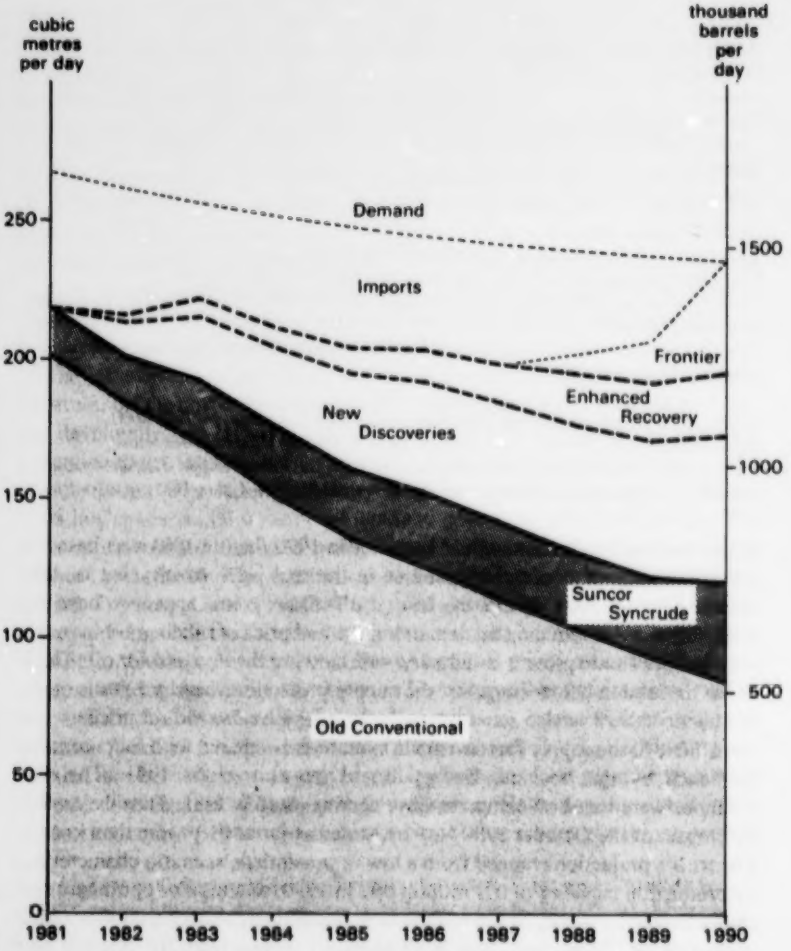
Developments since the NEP have not caused the federal government to change its objective of oil self-sufficiency. In fact, in May 1982 it claimed that "Canada is doing better so far than had been anticipated in the 1980 NEP forecast".[6] This claim came as a surprise, since the combination of delays due to the NEP impasse and softening world oil markets had resulted in the cancellation of both the Alsands and Cold Lake projects, and thereby presumably reduced the supply outlook in 1990 by 250,000 bpd. The government supported its claim by pointing to the 2.3 percent drop in oil demand in 1980 and the 6.7 percent drop in 1981. A similar decline was expected in 1982 because of the recession and the apparent success of the off-oil program. As a result, it appeared that efforts to reduce demand were working. On the basis of this evidence, the target of reducing demand to 1.5 million bpd by 1990 was not altered.

This meant that some means of replacing the lost supply from the oil sands was needed to illustrate the feasibility of oil self-sufficiency by 1990. The deficiency was eliminated in two ways. It was assumed that oil production from the East Coast offshore sources would commence in 1988, and from the northern frontier (Beaufort Sea) in 1990.[7] The combined output was expected to be 250,000 bpd, exactly enough to replace the vanished oil sands production. The federal government's May 1982 forecast of crude oil demand, supply and imports over the 1981-1990 period is shown in Figure 5.

Several points about this forecast are worth noting. First, although oil self-sufficiency was promised, oil imports were expected to average almost 250,000 bpd in the first half of the decade, would not be reduced significantly until 1987, and then only if the frontier regions came on stream. Second, the

5. *Ibid.*, p. 93.
6. Department of Energy, Mines and Resources, *The National Energy Program: Update 1982* (Ottawa: Supply and Services, 1982), p. 87 (hereafter cited as *NEP: Update 1982*).
7. *Department of Energy, Mines and Resources, Energy Strategy Branch, National Energy Program, Update 1982: Supplementary Information on Canadian Energy Supply/Demand Outlook 1981-2000* (Ottawa, June 1982), pp. 27-29.

FIGURE 5: **Oil Self-Sufficiency by 1990?**



Source: Energy, Mines and Resources Canada

TABLE 3

Comparison of NEB and EMR Oil Supply Forecasts, 1990[a] (thousands of barrels per day)

	NEB				EMR
	Low	Base	Modified Base	High	NEP Update
Established reserves	414	414	427	427	465
Pentanes plus[b]	65	65	65	65	63
Oil sands[c]	214	214	214	214	226
New discoveries and enhanced recovery[d]	216	360	375	630	459
Frontier	—	75	75	226	252
TOTAL	909	1128	1156	1562	1465

[a] All figures have been converted to barrels based on 1 cubic meter = 6.29 barrels.

[b] A by-product of natural gas processing which is included in crude oil supply.

[c] NEB modified base case and high case have been adjusted to reflect cancellation of Alsands and Cold Lake projects.

[d] Includes new conventional discoveries, new enhanced recovery, supply from experimental projects, and upgrading loss.

SOURCE: National Energy Board, *Canadian Energy Supply and Demand 1980-2000*, (Ottawa: Supply, and Services, June 1981), p. 146-147. Energy, Mines and Resources, "NEP Update 1982, Supplementary Information on Canadian Energy Supply/Demand Outlook, 1981-2000", Mimeographed (Ottawa: Energy, Mines and Resources, June 1982), p. 42.

projection that oil demand would be lower in 1990 than in 1981 was based on the assumption of continued increases in the real price of oil, that is, after allowing for inflation. While the federal off-oil programs appear to have had some influence in reducing oil demand, if the real price of oil does not increase, renewed economic growth could very well increase the demand for oil. Third, as the discussion below suggests, the supply projection used by EMR is on the optimistic side; it is also sensitive to the future path of world oil prices.

In Table 3, the supply forecast made by EMR is compared with four scenarios published by the National Energy Board (NEB) in June 1981. The NEB scenarios were based on comprehensive hearings held in 1981. Thus they reflect the impact of the October 1980 NEP measures as far as they were then known. The NEB's projections ranged from a low or pessimistic scenario characterized by production capacity of 0.9 million bpd in 1990, to a high or optimistic case characterized by supply of 1.6 million bpd. Between these scenarios was a basic projection or "base case" which assumed no change from the original NEP pricing and taxation arrangements, and a modified "base case" which assumed that some changes would be made to the NEP to improve returns to producers.

The modified base case, adjusted for the demise of Alsands and Cold Lake, projected a supply capacity of 1.2 million barrels per day. When combined with the EMR oil demand projection, the modified base case suggested that Canada would still be importing 300,000 bpd of crude oil in 1990.

It is apparent that achievement of energy self-sufficiency by 1990 will require three developments:

- new conventional oil discoveries close to the NEP's most optimistic projection;
- significant new enhanced oil recovery capacity; and,
- favourable discovery outcomes in the offshore and northern areas.

New discoveries of conventional oil are likely to fall below expectations in the early 1980s because of sharp reductions in drilling activity in the Western provinces.[8] The EPTAs have improved producer returns for enhanced recovery oil, that is, the incremental volume of oil that can be extracted from existing wells by special processes such as the injection, under high pressure, of water or chemicals. Reduced cash flow, high interest rates and rising development costs have delayed activity in this area, however.

The least certain of the supply sources is frontier production. EMR expects Hibernia, off the cost of Newfoundland, to begin crude oil production by 1988. But development of Hibernia oil is being delayed by differences between the governments of Canada and Newfoundland on energy pricing, taxation and administration. The federal government claims jurisdiction over all offshore areas in Canada, a claim the Newfoundland government does not accept. The latter is determined to retain control over the pace of development of the offshore oil industry. The matter is to be heard before both the provincial and federal Supreme Courts.[9] Once the jurisdictional question is resolved, an energy-pricing and revenue-sharing agreement must be reached. Uncertainties relating to development costs and future world oil prices mean that finding a revenue-sharing agreement suitable to industry as well as governments may be time-consuming. Final decisions also have yet to be reached on technical questions, such as whether production platforms will be fixed or floating and whether the oil will be transported to Newfoundland by pipeline or loaded directly onto tankers and shipped to refineries. Such decisions will affect production costs of Hibernia oil. In the North Sea, where conditions are less

8. Oil and gas well completions and total metres drilled both declined by over 20 percent in 1981, and were likely to show a further drop of 25-30 percent in 1982 (*Oilweek*, 8 February 1982, p. 32; 25 October 1982, p. 27).
9. The president of Gulf Canada Limited has stated that, unless the jurisdictional dispute is settled very quickly, production will not begin before 1990. See "Oil Output at Hibernia Faces Delay," *The Globe & Mail* (Toronto), 16 September 1982.

severe than in the Hibernia area, offshore oil drilling and development costs have increased fivefold in the past ten years.[10] According to recent reports, some companies considering new developments in the North Sea are having second thoughts because of high taxes and production costs which have risen to $20 per barrel in some fields.[11]

The NEB assumed in its high supply projection that production would begin at 25,000 bpd in 1990 and would be transported by ice-breaking tankers from the Beaufort Sea to the east coast. The EMR projections also assumed that production from the Beaufort Sea would begin in 1990. By late 1982, however, no commercially viable oil discoveries had been made. The investment cost of producing Arctic oil is so high that only a very large volume of oil would be commercially viable.[12] For example, drilling results in 1982 showed that the Tarsiut field in the Beaufort Sea contains 350 million barrels of oil. While this would be considered a massive discovery in most parts of Canada, Arctic oil fields would have to contain between 500 million and one billion barrels of oil to be developed on a commercial basis.[13] Consequently, the Tarsiut field, which had promised to be the first producing well in the Beaufort Sea, will only be developed if another large oil field is found nearby such that one collection system could be used for both fields.

Weakening world oil prices have reduced the attractiveness of Beaufort Sea oil. Even if fields large enough to produce at a rate of 100,000 bpd are discovered, the total costs of such oil delivered to southern Canada have been estimated in the range of $30-45 per barrel.[14] Given the recent weakness and future uncertainty of world oil prices, it is unlikely that exploration could proceed without generous federal PIP grants.

The preceding discussion raises questions not only about the feasibility but also the desirability of attaining oil self-sufficiency by 1990. If world oil demand remains below 1981 levels and other non-OPEC supply sources maintain or expand production, OPEC will continue to operate at only 50 to 60 percent of capacity. It will be difficult to raise prices in this environment, so real oil prices will likely continue to decline. Encouraging marginal oil developments with generous incentive schemes is a high-risk and potentially high-cost strategy. Given the uncertainties, it seems more appropriate to encourage development of less costly conventional oil prospects in Western Canada. The

10. "On or Off? Western Europe's Oil and Gas, a Survey," *The Economist*, 12 June 1982, p. 8.
11. Ray Dafter, "Energy Projects in Peril World-Wide," *The Globe & Mail* (Toronto), 26 April 1982.
12. David B. Brooks, "Beaufort Sea Oil: The Costs of Production," *Northern Perspectives* 8, no. 6 (1980): 2-7.
13. Paul Taylor, "Gulf Drilling Results Dash Tarsiut Development Hopes," *The Globe & Mail* (Toronto), 21 October 1982. See also Brooks, *op. cit.*, 6.
14. Brooks, *op. cit.*, 6. Costs are in constant 1979 dollars in Canadian funds.

main reason to favour Hibernia and Beaufort Sea developments over those in Western Canada is increased Canadian federal government control over oil production. It is important, however, to recognize the risks and costs involved.

TABLE 4

Revenue Sharing Estimates (1981-86)

	September Agreement September 1981		NEP Update May 1982	
	($ billion)	(%)	($ billion)	(%)
Federal	61	29	36	22
Provincial	75	35	53	32
Industry	78	36	74	46
Total	214	100	163	100

SOURCE: NEP: *Update 1982*, p. 77.

Sharing Energy Revenues

The EPTAs were implemented for a five-year period. Both Alberta and the federal government agreed that either may alter the agreed fiscal mechanisms, but not so as to reduce significantly the aggregate revenues of the other level of government or of the petroleum industry. It was claimed the agreements would provide greater certainty about oil pricing and taxation, and so allowing both governments and industry better to plan expenditures and activity.

The expected revenues of each of the three participants over the period 1981-1986 are shown in Table 4. The federal government did not publish the specific assumptions about domestic oil demand and supply and world oil prices on which the revenue estimates were based; however, it has since become apparent that total revenues and revenue shares are extremely sensitive to these assumptions, and that the set of assumptions used in the agreements has since been altered significantly. In September 1981, on the assumption that the real price of foreign oil would continue to increase and that domestic demand would decline slowly, total oil and gas production revenues in the period 1981-1986 were expected to be $214 billion. The federal government share of these revenues was calculated at 29 percent, with the provinces obtaining 35 percent and the industry 36 percent.

With both world oil prices and Canadian oil production lower than expected, however, expected total revenue and the way in which it is shared has changed quite dramatically. In May 1982 the federal government published revised estimates showing total production revenues over the 1981-86 period at $163

billion, a drop of $51 billion in only nine months. The federal and provincial governments were expected to absorb $47 billion of this "loss". Consequently, while revenue shares were expected to drop to 22 percent for the federal government and 32 percent for the provincial governments, the industry share was expected to rise to 46 percent.

The federal government claimed the revised outlook showed the fiscal system to be flexible and "fundamentally fair: on the downside, as prices and profits fall, the burden falls on government, not the industry".[15] This assertion was questionable, for several reasons. The May 1982 revenue estimates took account of Alberta's measures to reduce taxes and royalties worth $5.2 billion to the industry and of federal tax reductions valued at $2.1 billion. Without these "give backs" the flexibility of the system would have been significantly reduced. The tax reductions reflected a recognition on the part of governments that, unless changes were made, industry revenues would drop considerably.

The May 1982 revenue share estimates were based on EMR's world oil price forecast, illustrated in Figure 3. If the lower projection depicted there proves more accurate, the absolute revenues of each of the three groups will be significantly lower than the May 1982 estimate of $163 billion. Apparently, the federal and Alberta governments believed that the industry would require $70-$80 billion in revenue in the period 1981-86 to cover operating costs and provide for the investment required to reach oil self-sufficiency by 1990.[16] Continued weakness in world oil prices would reduce industry revenues significantly below the $74 billion estimated in May 1982 unless the federal and provincial governments make further tax and royalty changes.

The weakening outlook for oil prices also had important implications for federal budget strategy. New taxes implemented when the NEP was introduced in October 1980 were expected to reduce the federal government's deficit. Estimates of the expected revenue from changes in oil and gas related taxes showed a total tax yield of $14 billion in fiscal years 1981/82 through 1983/84.[17] In the November 1981 budget following the EPTAs it was announced that by fiscal year 1983/84, additional federal taxes would yield $2.4 billion more than projected in the previous budget.[18]

Three subsequent policy statements – the *NEP Update* in May of 1982, the federal budget in June, and the Economic Statement in October 1982 – have illustrated that deficit reduction through increased oil and gas taxation will not

15. Department of Energy, Mines and Resources, *NEP: Update 1982*, op. cit., p. 79.
16. In 1981 operating costs, land payments and capital expenditures in the upstream oil and gas industry totalled $10.8 billion (Department of Energy, Mines and Resources, Petroleum Monitoring Agency, *Canadian Petroleum Industry Monitoring Survey*, 1981, pp. 19, 42).
17. Department of Finance, *Budget Papers*, 28 October 1980, p. 81.
18. Department of Finance, *Budget Speech*, 12 November 1981, p. 8.

match the expectations of the federal government. In May 1982, the federal government indicated that lower assumptions about future international oil prices and tax "give backs" would result in federal oil and gas revenues of only $36 billion over the 1981-86 period, instead of the $61 billion estimated in September 1981.

TABLE 5

Expectations of Federal Government Energy Revenues ($ million)

	November 1981		October 1982		Change	
	81/82	82/83	81/82	82/83	81/82	82/83
Petroleum and gas revenue tax and incremental oil revenue tax	1180	3760	865	1930	−315	−1830
Natural gas and gas liquids tax	1080	1505	1000	1220	− 80	− 285
Sub total	2260	5265	1865	3150	−395	2115
Corporate income tax (petroleum industry)	2115	2815	2115	1000[a]	—	1800
Total	4375	8080	3970	4150	−395	−3915

[a] estimate based on first half of 1982.

SOURCE: Department of Finance, *The Budget in More Detail*, (Ottawa, November 1981) and *Statement on the Economic Outlook and Financial Position of the Government of Canada*, (Ottawa, October 1982).

In the June 1982 budget, the estimate of the federal deficit for the fiscal year 1982/83 almost doubled to $19.6 billion, and, by October 1982, that estimate had increased to $23.6 billion. While most of the increase was directly attributable to the operation of automatic fiscal stabilizers during the recession, $2.5 billion of the increase was the result of lower international oil prices, and of lower energy-related taxes.

Information included in the Budget papers made it possible to calculate the energy revenue shortfalls that were beginning to appear. Collections for each of the three special federal energy taxes (PGRT, IORT, NGGLT) ran far behind November 1981 expectations. The PGRT and IORT fell short of expectations for two reasons. The tax give backs announced in the *NEP: Update 1982* accounted for about one-quarter of the 1.8 billion revenue shortfall in 1982/83 (Table 5). The remainder was attributable to weakening world oil prices, which reduced revenues obtained from newly discovered and synthetic oil. Revenues also

fell short of expectations because production was less than expected. In early 1982 domestic production bore the brunt of falling crude oil demand in Canada and this resulted in some revenue loss.

Another source of the revenue shortfall was corporate income taxes relating to oil and gas production. In November 1981, such revenues were expected to increase from $2.1 billion in 1981/82 to $2.8 billion in 1982/83.[19] However, after mid-1981, weak demand, new federal taxes and high interest rates cut deeply into corporate profits in the oil and gas industry. As a result, corporate income taxes (excluding PGRT and IORT) paid by the petroleum industry dropped from $1.2 billion in the first half of 1981 to $0.5 billion in the first half of 1982.[20] If corporate tax revenues continue at this pace through the remainder of the 1982/83 fiscal year, the shortfall of actual energy revenues below the expectations of November 1981 could reach $4.0 billion.

The shortfall in federal energy revenues indicates the government will be forced to change its medium-term budget strategy,[21] not only because oil and gas revenues fell short of previous expectations, but because the NEP strategy assumed that oil and gas rents were stable, predictable, and provided a sound basis for planning. Recent world oil market developments indicate this assumption is false. In spite of the cartel power of OPEC, market forces have recently played a powerful role in determining world oil market developments. OPEC has been unable to eliminate alternating periods of shortage and over-supply. An extended period of over-supply will erode real oil prices and the associated economic rents. The medium- and longer-term uncertainty associated with international oil prices suggests that the federal budget strategy based on rising energy revenues was risky, because commitments were made to finance future expenditures with energy revenues that may never materialize.

Summary

As the medium-term outlook for the price of crude oil has weakened, the NEP objective of energy self-sufficiency has increasingly conflicted with its companion objective of fairness in energy pricing and revenue sharing. If the federal government continues to pursue both objectives aggressively, it is unlikely that either will be achieved. At the same time, the economic case for eliminating all oil imports has never been convincingly demonstrated. Excess supply on international markets and falling real oil prices have reduced both the incentive to pursue oil self-sufficiency and the benefit to Canada from achieve-

19. Department of Finance, *The Budget in More Detail*, 12 November 1981, p. 56.
20. Unpublished data obtained from the Business Finance Division of Statistics Canada.
21. This argument is also made by Informetrica Limited. See "Loss in Federal Revenue Accompanies Oil Glut," *Monthly Economic Review* (Informetrica Limited), March 1982.

ment of that objective. Falling prices have also significantly eroded the federal government's actual and expected energy revenues and this may force a rethinking of its budget strategy.

5

The Pitfalls of Canadian Energy Policy-Making

The NEP and the protracted federal-provincial dispute leading up to the pricing and taxation agreements raised important questions about the process by which energy policy is formulated in Canada and how that process affects the policy itself. Problems in the process within the federal government and at the federal-provincial level together played a critical role in arriving at an energy policy which served the interests of the governments involved, rather than the interests of all Canadians. This chapter examines the pitfalls encountered both in designing the NEP's provisions and in reaching the EPTAs. The analysis concludes that improvements in the process are required; some of these are suggested in Chapter 6.

The Federal Policy Process

Fundamental shifts in policy such as the NEP, triggering changes in regulations, taxes and government expenditures, often have unforeseen consequences. These results are difficult to gauge in advance, as a wide range of factors can influence the ultimate success or failure of the original policy change. These factors include the economics of petroleum exploration, development and production; political jurisdictions; foreign ownership; and the international mobility of capital. The analysis and advice of outside experts is often sought because of the complexities involved in both formulating a fundamental policy shift and assessing its impact. Input from those who will be affected by the changes, such as business, labor, and consumer groups, can be helpful, too, in assessing the possible impact of new policy measures on different sectors of the economy.,

There are practical limits, however, to the involvement of those affected by the changes. Opening up the process conflicts with the need for secrecy where radical changes in tax, regulations and expenditures are being planned. Profit

from advance knowledge of such changes has to be prevented, and groups affected by change should not be in a position to undertake campaigns to block it or to take advance measures to negate the intended legislation.

At the same time, it must be recognized that federal policy-making is subject to its own internal sources of bias owing to pressures from federal bureaucrats and provincial governments. The politics of making policy in concert with provincial governments may make federal bureaucrats more inclined to consult with those constituent groups which the federal government holds vital to program success and/or political support in its negotiations with other governments. Policy advice received from such groups will, almost inevitably, be biased in favor of their interests. Ideological views and bureaucratic interests of both department policy-makers and senior personnel in central federal agencies, such as the Privy Council Office and the Prime Minister's Office, may also have a direct bearing on the methods chosen to implement the change in policy. These individuals often have a stake in the type of program selected.[1] As well, it must be noted that the Cabinet sets policy priorities and objectives, especially where fundamental policy shifts are involved, and that the bureaucratic policy-makers formulate programs within the framework established by Cabinet.

The realities of the secrecy constraints and the biases from within governments noted above can prevent the use of external advisers who have no bureaucratic or other vested interest in the methods chosen to implement policy changes. Such advisers can contribute a disinterested analysis of the relative costs and benefits of the proposed changes. The absence of such external input from disinterested experts can seriously diminish the probability of success for a major policy shift.

The process which led to the NEP suffered from all of these problems. The NEP was prepared by a small circle of policy-makers who designed its provisions within the broad policy thrust set out by the then Energy Minister Marc Lalonde.[2] Since the program was introduced through the budget of 28 October 1980, the tax, expenditure, and regulatory changes in energy policy were subject to the normal budget secrecy constraints. This also meant that much-needed advice from business, economic and policy analysts was excluded. Nor did the designers of the NEP have to follow the normal bureaucratic process

1. The Hon. Mitchell Sharp has explained how the ideas of policy-makers and the bureaucratic struggle for influence and resources create a personal interest for these individuals in a policy change. See "The Role of Economic Advice in Political Decisions," in David C. Smith, ed., *Economic Policy Advising in Canada: Essays in Honour of John Deutsch* (Montreal: C. D. Howe Institute, 1981), pp. 214-215.
2. G. Bruce Doern, "Energy, Mines and Resources, the Energy Ministry, and the National Energy Program," in G. Bruce Doern, ed., *How Ottawa Spends Your Tax Dollars, 1981* (Toronto: James Lorimer, 1981), pp. 56, 61.

of consultations with affected departments. There was, for example, scant consultation with the Department of External Affairs on the implications of the program for Canada-U.S. relations.[3]

Industry input to the formulation of the NEP was limited by the need for budget secrecy and by both bureaucratic and intergovernmental politics. Prior to the NEP, Dome Petroleum Limited and Nova: An Alberta Corporation, had much greater access to both cabinet and bureaucratic policy-makers than did either the multinationals or the smaller Canadian-owned oil companies. In the federal-provincial power struggle over energy, these oil firms lent valuable although not disinterested support to Ottawa's "Canadianization" policy goals. Yet neither Dome nor Nova was involved in advising Ottawa on the measures in the NEP because of the budget secrecy surrounding their preparation. Industry input into the design of the NEP came only from Petro-Canada, the federal Crown Corporation. It hardly can be claimed that consultation with Petro-Canada represented adequate industry consultation, in light of the growing evidence of Petro-Canada's willingness "to interpret the national interest according to its own needs."[4]

Ideological positions and the bureaucratic interests of the policy-makers in the Department of Energy, Mines and Resources (EMR) and the central agencies also resulted in a lack of rigorous criticism of the NEP measures. During the late 1970s, the main role of EMR gradually had changed from the provision of scientific and technical advice to the conduct of policy analysis and policy-making, such that, by 1980, EMR had "been transformed from a fairly traditional line department in the federal government to a powerful central agency."[5] The late 1970s also marked the ascendance of senior officials in EMR who believed expanded federal intervention in the energy sector was essential to the attainment of Ottawa's economic and political objectives.[6] Increased federal energy activism served the interest of the bureaucratic policy-makers in EMR, both by expanding their control over the energy environment, and by enhancing the Department's position within the bureaucracy by giving it increased authority and human resources.

At the same time, the planning approach used in developing the NEP dovetailed neatly with long-held interests in the Privy Council Office and the Prime Minister's Office in creating a rational planning environment in Ottawa.

3. Stephen Clarkson, *Canada and the Reagan Challenge* (Ottawa: Canadian Institute for Economic Policy, 1982), pp. 56, 297.
4. Larry Pratt cites Petro-Canada's lobbying efforts for rapid East Coast oil development and the Arctic Pilot Project as evidence of this contention. See "Petro-Canada: Tool for Energy Security or Instrument of Economic Development?" in G. Bruce Doern, ed., *How Ottawa Spends Your Tax Dollars, 1982* (Toronto: James Lorimer, 1982), pp. 97-99.
5. G. Bruce Doern, "Energy, Mines and Resources," *op. cit.*, pp. 56-61.
6. *Ibid.*, p. 56.

Equally important was the response of the Department of Finance to the EMR approach. Traditionally, Finance had exercised its authority and expertise against threats to its economic policy role by subjecting the proposals of other departments to rigorous economic examination.[7] Although this clearly was of benefit to the institutional power of Finance, this analysis also served to identify the economic merits and costs of policy alternatives. It appears, however, that this kind of approach was not applied to the NEP. Finance seems to have supported both the objectives and the methods chosen to implement the policy.

The attitude of the Department of Finance toward the NEP can be attributed to three factors. One was the symbiosis of views between the policy-making personnel in Finance and EMR, as a result of interchanges of senior officials between these two departments in the later 1970s. A second factor was that Finance welcomed the potential new sources of revenue provided by the NEP as a means of reducing the federal deficit. The third factor may have been Finance's recognition of EMR's ascendancy and the Cabinet's determination to proceed with the NEP.

The NEP had numerous unanticipated consequences. One unexpected result was the onerous impact of the NEP measures upon the small Canadian-owned oil and gas firms. Despite the stated objective of increasing Canadian participation in the petroleum industry, the NEP measures achieved the reverse for these so-called "junior" petroleum firms. Because these companies do not have the operating income for the high-risk exploration in the frontier areas, the Petroleum Incentives Program (PIP) brought them little benefit. The federal Production Tax on Oil and Gas Revenue (PGRT) and the Natural Gas and Gas Liquids Tax (NGGLT) substantially depressed the cash flow of these firms. The NGGLT, by making Canadian natural gas exports uncompetitive in the U.S. market, further reduced their revenues from gas production. These measures contributed significantly to the decline in investment in 1981 in the drilling funds which junior oil and gas firms had used to finance exploration. These impacts clearly were unintentional and were recognized by EMR when it granted special tax relief to small Canadian-owned petroleum firms in May 1982.[8] Greater input from either outside analysts or industry officials could have reduced this adverse impact.

7. See Richard D. French, *How Ottawa Decides: Planning and Industrial Policy-Making 1968-1980* (Ottawa: Canadian Institute for Economic Policy, 1980), p. 31; Colin Campbell and George J. Szablowski, *The Superbureaucrats: Structure & Behavior in Central Agencies* (Toronto: Macmillan of Canada, 1979), pp. 86-88.
8. See the small producers' PGRT exemption in Department of Energy, Mines and Resources, *The National Energy Program: Update 1982* (Ottawa: Supply and Services Canada, 1982), p. 74.

Another unexpected result was the amount of controversy over the 25 percent "carried interest" provision as it applied to existing frontier leases. Not only did this measure adversely affect the major Canadian players more than the foreign-owned multinationals, its retroactivity had a strongly negative impact upon the industry's perception of returns from exploration and development. Given the long start-up time and huge capital costs of frontier activity, the planning environment (expected future economic conditions and government policies) is an important determinant of exploration and development activity.[9] Achievement of the objective of energy security required a stable planning environment, particularly for the Canada Lands. Yet the "carried interest" provision generated a view in the petroleum sector that Ottawa was changing the basic ownership rules after investments had been made.

Ottawa defended this measure as being in keeping with international practices and previous federal land reversion policies, contending its retroactivity was akin to that of any tax change.[10] Yet the carried interest provision was no ordinary tax increase or windfall profits tax, since the federal government demanded a share of the equity ownership for existing leases. The possibility of retroactivity in equity appropriations might have been expected to pose a threat to business confidence. An alternative tax technique could have been devised to meet the revenue goals for existing leases while retaining the "carried interest" provision for future leases.

A third unexpected result was the impact of several of the NEP's measures on Canada-U.S. relations. As noted, the policy process at the federal level precluded the normal consultations with the Department of External Affairs; as a result, insufficient account was taken of the impact of several policy measures upon the bilateral relationship. The Canadianization and energy pricing measures had serious implications both for trade between the two countries and for the overall relationship, especially since a number of sensitive issues already existed on the Canada-U.S. agenda. By 1980, Canadian automotive exports to the United States were imperilled by U.S. threats to re-write the Auto Pact, while Canada's steel exports were facing proliferating 'Buy America' legislation at the state government level. In addition, many of Canada's future growth sectors, such as communications equipment and urban transit vehicles, required delicate bilateral negotiations to ensure their continued access to the U.S. markets on which they depend for their viability. Given these difficult trade issues, the way in which Canada dealt with U.S. multinational petroleum companies was likely to have consequences for U.S. government policy toward

9. Carl E. Beigie, "An Introductory Overview," in Carl E. Beigie and Alfred O. Hero, Jr., eds., *Natural Resources in U.S.-Canadian Relations*, vol. 1, *The Evolution of Policies and Issues* (Boulder, Col.: Westview Press, 1980), pp. 6-7.

10. Clarkson, *op. cit.*, p. 73.

other Canadian industries. The growing role of Congress in Canada-U.S. relations also had to be recognized, particularly because difficult economic times had increased the preoccupation of Congress with local and state interests to the detriment of the bilateral relationship.[11]

In such an environment, the comparative costs and benefits of alternative energy policy measures can be significantly altered by trade concerns. For instance, it can be argued that the merits of the retroactivity of the federal claim to a 25 percent interest in existing frontier leases were outweighed by its costs in terms of bilateral relations. The retroactivity of the "carried interest" provision aroused concern within both the Carter and Reagan Administrations, where this provision was perceived as expropriation; there was, however, no objection to the clause for new frontier leases.[12] As well, if domestic oil and gas prices paid by energy-intensive Canadian exporting industries (such as basic petrochemicals, synthetic textiles, and basic plastic products) remain well below world prices, the cost advantage could result in countervailing duties in the United States, particularly given the current U.S. protectionist climate. In summary then, the absence of external input from disinterested experts in Canada-U.S. relations reduced the possibility of minimizing the impact of the new energy policy on bilateral relations.

The absence of disinterested expertise has also hindered revision of the NEP in the face of the changing energy environment. By the end of 1982, EMR had undertaken neither a re-assessment nor a revision of the NEP. EMR has drawn strength from the regulatory scope and human resource requirements of the NEP, and its policy-makers may be expected to defend the existing program in order to preserve their credibility. At the same time, the Department has attempted to appease some of the U.S. concerns by offering compensation to firms when the "carried interest" measure is exercised, and by promising not to extend this type of legislation to other sectors of the economy. As well, it has used external expertise in implementing some technical aspects, such as the program's heavy oil incentives. It also moved to improve the depressed cash flow of the petroleum industry in May 1982. However, these changes have been reactive and *ad hoc*. They have done little to change the fundamental problems in the design of the NEP.

The value of external expertise, however, was evident in the re-drafted energy bills introduced by the Government and passed by Parliament. These alterations were made in the aftermath of testimony given to the House of Commons Standing Committee on Energy Legislation in 1982. The Committee called many expert witnesses from inside and outside government to examine

11. Peter C. Dobell, "Negotiating with the United States," *International Journal* 36 (Winter 1980-81): 31.

12. Clarkson, *op. cit.*, pp. 24-25, 71-72.

the legislation establishing the NEP. It is significant, nonetheless, that the changes which the government agreed to make in the legislation were essentially confined to the administrative powers of the Cabinet and federal regulatory agencies.

The Federal–Provincial Policy Process

Compounding the weaknesses of energy policy-making within the federal government structure were problems between Ottawa and the producing provinces. Federal–provincial policy-making is an integral element of the Canadian policy process, given the overlapping jurisdictional responsibilities as well as the competing socio-economic and political objectives of the federal and provincial governments. The achievements of joint policy-making have been impressive, particularly in the area of fiscal arrangements, equalization payments, and the establishment of an enlightened social security system.[13] In recent years, however, the capacity of the intergovernmental system to achieve effective policies has been increasingly strained by deficiencies in the federal–provincial process. These deficiencies are the result of several critical external factors and of specific elements of the process itself.

The federal–provincial policy process encounters its greatest difficulties in the face of two external factors – sharp regional divisions and competing institutional interests of governments.[14] The energy dispute between the federal and Alberta governments had its origins in both of these areas. Regional divisions over energy policy were long-standing and strongly entrenched. Albertans viewed energy revenues and energy-induced growth as providing the vehicle for the realization of their long-frustrated economic and political aspirations. Federal energy policy from 1973 onwards constituted the latest grievance felt by Westerners, especially Albertans, toward federal economic policies and political institutions which were perceived to benefit central Canada at the West's expense. The interests of Albertans lay in higher energy prices which would generate higher provincial revenues and economic growth in the province. These interests were in stark contrast to those of central Canada. There, the lack of sufficient oil and gas resources coupled with the importance of the manufacturing base in Ontario and Quebec led this region to support staunchly both a far slower rise in domestic oil and gas prices, and greater federal energy revenues so that the macroeconomic effects of any oil price increase could be offset.

These regional divisions over energy policy meant both the Alberta and federal governments had strong bases of political support for their respective

13. See Richard Simeon, "Intergovernmental Relations and the Challenges to Canadian Federalism," *Canadian Public Administration* 23 (Spring 1980): 17.
14. *Ibid.*, 17-18.

positions. The Lougheed government in Alberta had defended provincial resource control in the 1975 and 1979 election campaigns, and received overwhelming majorities in both cases. Albertans' support for the tough provincial stand of the Lougheed government, as evidenced by polls taken in 1980,[15] reinforced the political strength of Alberta at the onset of the dispute with Ottawa. For its part, the Trudeau government had been elected on the basis of its gains in Ontario and the Atlantic provinces, due in large part to the appeal of its centralist energy platform. At the time of the NEP, polls indicated that the Trudeau government was at the height of its popularity.[16] The almost complete lack of Liberal representation in the West, however, deprived the federal government of the national legitimacy so crucial to the political success of the NEP.

The institutional interests of governments encompass revenues, jurisdiction, political credit and status together with their ideological objectives regarding policy issues and the federal system.[17] The competing institutional interests of the Alberta and federal governments severely handicapped the intergovernmental policy process. The ideological clash over the nature of Canadian federalism and energy policy between Premier Lougheed and Prime Minister Trudeau was particularly acute. Mr. Lougheed had been a strong exponent of province-building since his election in 1971; energy was the focus of this vision. The Alberta Premier had articulated, for more than a decade, a development strategy based on the province employing its depleting resources to maximize provincial revenues and reduce its dependence on external economic and political forces. In contrast, Prime Minister Trudeau's election in 1980 ushered in a federal government dedicated to country-building.[18] For Ottawa, the energy sector was a primary choice for re-establishing the federal economic and political presence.

The political commitments to their respective energy goals by the federal and Alberta governments heightened the ideological conflict. The Lougheed gov-

15. One poll found that 73 percent thought Premier Lougheed was "doing an excellent job guarding Alberta's interests" in his three-pronged response to the NEP. See "One in 4 Albertans are Separatists: Poll," *Toronto Star*, 2 November 1980.
16. In the Gallup poll for September 1980, the Liberals' popularity had reached 50 percent of the electorate, with its main strength in central Canada (figure cited in "Tories Pull Ahead of Grits by 4%," *Toronto Star*, 9 December 1981).
17. Richard Simeon, *Federal-Provincial Diplomacy* (Toronto: University of Toronto Press, 1972), pp. 184-194.
18. For a discussion of province-building versus country-building, see Jeff Evenson and Richard Simeon, "The Roots of Discontent," in *Proceedings of the Workshop on the Political Economy of Confederation* (Hull, Que.: Supply and Services Canada, 1979), pp. 165-198; and Judith Maxwell and Caroline Pestieau, *Economic Realities of Contemporary Confederation* (Montreal: C. D. Howe Research Institute, 1980).

ernment had waged a consistent public campaign in 1979 and 1980 in favor of higher energy prices and in defence of Alberta's right to control natural resource production within its boundaries. For their part, the federal Liberals built their energy platform around low domestic energy prices and a greater federal role in energy policy. The combination of the strong constitutional positions of both governments in the energy field[19] together with all the other difficulties created enormous impediments for the federal–provincial policy process, as the protracted impasse leading up to the Agreement showed.

In addition to the regional divisions and institutional interests noted above, the procedures, strategies and tactics of the negotiations created significant defects in the federal–provincial energy policy process. Indeed, that process demonstrated four inherent problems which often afflict the inter-governmental process in general:

- The federal–provincial process leads to the dominance of intergovernmental issues which can crowd out the concerns of others who have an interest in the policy outcome.[20] Negotiations on Canadian energy policy were conducted by only two of the interested parties – Ottawa and Alberta – ensuring the preeminence of their concerns in the dispute. The issues raised during the negotiations and the design of the EPTA confirm this conclusion. Extended disputes over revenue-sharing, the nature of the PGRT and NGGLT as it affected Alberta's interests, and the implementation of the PIP grants were central to the negotiations.[21] The debate over the PGRT and NGGLT centered upon jurisdictional and political questions regarding Ottawa's right to impose such taxes. The implications of these measures for the cash flow of the petroleum industry, especially the Canadian-owned oil and gas firms, received far less attention. The dispute over who would set the rules, provide the financing and administer the PIP provisions was purely an intergovernmental matter. The price schedule for oil, as incorporated in the final agreement, reflected a compromise between

19. Both Ottawa and the provinces have the authority to levy direct taxes. Prior to the Constitution Act of 1981, only Ottawa was permitted to levy indirect taxes although the provinces were empowered to levy royalties on natural resources. Other jurisdictional areas germane to energy policy include the federal power over extra-provincial trade and commerce and provincial authority over intra-provincial trade and commerce. For a more complete discussion of this area, see Glen Toner and François Bregha, "The Political Economy of Energy," in Michael S. Whittington and Glen Williams, eds., *Canadian Politics in the 1980's* (Toronto: Methuen, 1981), pp. 3-6.

20. Richard Simeon, "The Federal-Provincial Decision-Making Process," in Ontario Economic Council, *Issues and Alternatives 1977: Intergovernmental Relations* (Toronto: O.E.C., 1977), p. 35.

21. Sheilagh M. Dunn, *The Year in Review 1981: Intergovernmental Relations in Canada* (Kingston, Ont.: Queen's University, Institute of Intergovernmental Relations, 1982), p. 127.

the demands of the Lougheed government and the need to protect the political credibility of the Trudeau government which had promised lower oil prices than the Clark government. The inflexibility of these pricing provisions reflected the fact that the capacity to adjust to changing world oil market conditions was not a paramount issue. On all of these issues the concerns of other interested parties were clearly secondary to those of the governments involved.

- The nature of the federal–provincial process results in negotiations characterized by delay, uncertainty and unpredictability.[22] It took more than ten months to break the intergovernmental impasse and reach an accord. More than five months passed before the energy ministers even met, during which time both sides expounded their positions through the media in an attempt to gain public support. This engendered public expectations which, given the participants' concern for political credibility, made it far more difficult to reach a compromise. The pace of the negotiations, once begun, was also slow, as each energy minister would take the other's proposals to his cabinet, and return weeks later. These "consultative" gaps between meetings caused considerable uncertainty as to when the conflict would be resolved. In addition, public posturing was magnified by media coverage, accentuating the confrontation each time the energy ministers met.[23] The build-up of public and business expectations (and the costs of the ongoing conflict) created an atmosphere in which achievement of a solution to the impasse assumed as much importance as the substance of an accord. The preoccupation with the need to reach an accord also caused attention to be diverted from the signs of significant changes in the international oil markets beginning by June of 1981.
- The intergovernmental process contributes to undue secrecy and extraordinary complexity in public policy.[24] The NEP represented a significant increase in the complexity of energy policy. Public confusion grew as a result of the challenges of both the Alberta government and the petroleum industry about the impact of NEP taxes on petroleum sector activity and about the distribution of energy revenues. The EPTA created further confusion, because it added distinctions between new and old oil, amended some NEP taxes and introduced new taxes. The complexity was such that, by the final stages of negotiation,

22. Richard Simeon, "Intergovernmental Relations and the Challenges to Canadian Federalism," *op. cit.*, p. 22.
23. The energy ministers' meeting which finalized the EPTA was preceded by considerable media commentary on the "last chance" nature of the meeting. See, for example, Jennifer Lewington, "Montreal Energy Pricing Talks Seen as Make-or-Break Session," *The Globe & Mail* (Toronto), 22 August 1981.
24. Donald V. Smiley, "An Outsider's Observations of Federal-Provincial Relations Among Consenting Adults," in Richard Simeon, ed., *Confrontation and Collaboration – Intergovernmental Relations in Canada Today* (Toronto: Institute of Public Administration of Canada, 1979), p. 106.

each side was forced to rely heavily upon computer analysis to gauge exactly what was being proposed. This increased the mystery of the negotiations, and led to a solution which only the well-informed expert could comprehend. Public understanding of the outcome was further undermined by the projection of revenue shares in the Agreement which both the industry and market analysts challenged.

- The federal–provincial process significantly weakens the role of Parliament in public policy.[25] The secrecy surrounding the negotiations precluded the meaningful involvement of Parliament during the impasse. Indeed, Parliament only entered the policy process in a substantive way when the federal government's omnibus energy legislation was introduced in early 1982. Even then, the presentation of so many complex measures in one bill made it difficult for Parliament to deal with. The bill was subsequently divided into eight parts; by this point, however, Parliament's hands were effectively tied as a result of the federal government's commitment that neither party to the Agreement could make any changes which would reduce the revenue share of the other party or the industry. As well, the process of resolving the energy policy impasse was so time-consuming and costly that Parliament could ill afford to force a re-opening of the Agreement to meet any objections which it had. These limitations were such that Parliament was in effect presented with a *fait accompli*, thereby preventing its efforts to hold the federal government accountable in energy policy.

The deficiencies of the federal–provincial policy-making process – such as its inflexibility, the costly dispute, and each government's excessive concern with its credibility – have seriously impaired the EPTAs' flexibility and adaptability to a changing policy environment. Changes in world oil markets, in domestic energy consumption patterns and in the financial condition of the petroleum industry will not easily be accommodated. *Ad hoc* and unpredictable adjustments have been required by both sides in 1982 to address such developments. Not every contingency can be anticipated, but the present energy agreement is unduly vulnerable to changing market conditions.

The federal–provincial process has also failed to meet the needs of public understanding of Canadian energy policy. Indeed, despite convincing many central Canadians of the need for a more rapid energy price escalation, it may even have hindered that understanding. The NEP and the Agreement generated the false impression that world petroleum prices would not significantly affect the demand, supply and price of petroleum products in Canada. The publication of revenue-share projections conveyed an air of finality for the revenue split; this was simply not the case. Finally, the five-year term of the Agreement gave

25. *Ibid.*, pp. 106-107.

the incorrect impression that once the conflict was over, the energy situation would be under control and that Canadian policy would be set until 1986.

The federal–provincial energy policy-making process was tested in 1980-81. Major deficiencies were revealed. Unfortunately, by the end of 1982, no new mechanisms had been created to facilitate energy policy-making in the future. For example, no procedure exists for a review of existing policies by the major interested parties. The changing energy outlook, both foreign and domestic, raises the need for new contingency plans and strategies. Yet, the constraints of the Agreement have led government officials to downplay the possibility of prolonged weakness in energy prices rather than actively to foster public debate about the options facing government, industry, and consumers.

Summary

The NEP and the EPTAs suffered from major weaknesses in the process of energy policy-making in both the federal and federal–provincial spheres. The secrecy constraints and the bureaucratic politics within the federal government resulted in an absence of disinterested expertise which might have been used to examine the potential benefits, costs and consequences of energy policy measures. The deficiencies in the intergovernmental energy policy process led to an inflexible Agreement and ensured that federal–provincal concerns had primacy over those of other interested parties.

The consequences of these defects in the policy process include the adverse effects of the "carried interest" provision; the depressing effect of the NEP on the cash flow of small Canadian-owned energy companies; the inflexibility of the EPTA; the decline in public understanding of Canadian energy policy; and the lessening of the federal government's accountability for energy policy. The problems associated with energy policy-making during 1980-81 *could* provide many valuable lessons for the future. However, unless improvements in the policy process are attempted, little will have been gained from the experience.

6

Lessons from the National Energy Program

Policy-making often involves minor adjustment of objectives and in the measures used to achieve them. Such changes are usually justified by policy-makers on the grounds that they are expected to result in benefits for the nation as a whole or for certain regions or significant sectors of the economy.

The National Energy Program, however, represented a fundamental change both in the objectives of Canada's energy policy and in the measures to be used to achieve those objectives. The federal policy-makers who developed the program expected it would confer significant benefits on a majority of Canadians. Yet these benefits would only accrue if certain assumptions, about world oil prices and about the way in which interested parties would react, proved correct. No contingency plans were developed in the event that the assumptions proved wrong, and policy-makers failed to inform Canadians of the risks and costs inherent in the policy's objectives. In the two years since the NEP was introduced, its major price assumption has turned out to be wrong, there has been a negative reaction from the petroleum industry and foreign investors, and it has become evident that the program lacks the flexibility needed to adapt to the rapidly changing energy environment.

If economic policy is to be effective in the turbulent world of the 1980s, it must be based on a clear understanding of the importance of assumptions about the external environment and it must build in contingency plans to deal with unpredictable events. This is the basic lesson to be learned from the NEP that should be applied to economic policy-making in general.

Based on two years experience with the NEP, there are four more specific lessons to be learned about the objectives of the program and the policy-making process itself.

Canadianization of the oil industry is a costly way of securing resource benefits for Canadians. Increasing Canadian ownership of the oil

industry is one way of reducing the flow of windfall gains to the foreign owners of petroleum companies. But substantial costs are involved in Canadianization. Canadians have paid the price directly through the Canadian Ownership Charge – a tax imposed on oil and gas consumption to meet the costs of buying out foreign owners. There have also been indirect costs. Large-scale purchases of foreign-owned petroleum companies in 1981 destabilized the capital markets and played havoc with the exchange rate. The result was higher interest rates and a depreciation of the Canadian dollar, thereby increasing the cost of imports. There will be significant long-term costs as well. Foreign equity investment has been replaced with long-term foreign debt which will have a continuing negative impact on the balance of payments. The poor timing of the takeovers, at the peak of the oil price boom, and the debt financing of acquisitions weakened the financial structure of the newly-acquired firms. Finally, the retroactive federal claim to an interest in existing petroleum rights shook the confidence of both domestic and foreign investors in the stability of Canada's investment climate.

Another way of reducing the flow of windfall gains out of the country would have been to impose significantly higher taxes on industry revenues. This approach was, in fact, also adopted in the NEP. Its success in securing the windfall gains for Canadian governments demonstrates that the takeover of foreign petroleum companies was not only wasteful but unnecessary. Although the Department of Finance and EMR now favor a more gradual approach relying on joint ventures and vigorous exploration by Canadian companies, there are still strong incentives for foreign firms to sell to Canadians. While these incentives may aid some Canadian enterprises seeking to expand their petroleum activities, they are unlikely to yield net benefits for the nation.

The volatility of energy revenues makes it difficult to establish "fair" revenue sharing arrangements. Because energy revenues fluctuate so widely, there can be a destabilizing effect both on the fiscal positions of governments and on the petroleum industry. The notion of what constitutes a fair distribution of energy revenues between all interested parties inevitably changes as prices and costs of production change. A fiscal system designed to allocate the windfall gains from energy development must incorporate sufficient flexibility to cushion the impact of volatile prices on the development of commercially viable resources. If government policy is based on the expectation of revenue shares which do not materialize because of inaccurate assumptions about oil prices, the ability of governments to react to changing conditions is seriously limited. Because its share of revenues was declining, the federal government was able in May 1982 to provide only temporary relief for the industry's depressed cash flow position. Now, as a result of stagnating world oil prices, the federal government is confronted with further shrinkage in its energy

revenues. The high-risk strategy of trying to reduce the deficit and fund future spending from expected energy revenues has failed. In the process, the NEP commitment to fairness has suffered. The promise not to allow the price of old conventional crude oil to exceed 75 percent of the price of foreign oil may have to be broken. If this happens it will be clear that governments were mainly interested in increased revenues, and that the concept of "fairness" was introduced into the program only as a means of justifying higher prices and taxes.

Canada cannot dissociate itself from world oil markets and expect to achieve oil self-sufficiency at reasonable cost. Although the NEP aimed to eliminate oil imports and thereby dissociate Canadian oil prices from world oil markets, all new oil developed in Canada now is sold at the world price. When the price of old, conventional oil reaches the limit of 75 percent of the world price, all Canadian wellhead prices will then be linked directly with world prices.

This link will mean that changes in the world oil prices will have a direct bearing on Canada's prospects of achieving oil self-sufficiency. The present Canadian energy tax regime, combined with the existing stagnation in oil prices, is unlikely to generate sufficient petroleum exploration and development to eliminate imports by 1990. Frontier and enhanced-recovery oil would only be marginally attractive if the world oil prices drop to U.S. $25-30 per barrel. Under the present tax regime they may not be attractive at all. In such an environment, Canada can only achieve self-sufficiency by offering a guaranteed rate of return to the companies developing high-cost oil. Meeting such a guarantee might mean paying prices above world levels and could lead to significant inefficiency in Canadian energy production and consumption patterns. For example, although there are great risks involved in frontier exploration and development, the PIP grants are so generous that certain companies cannot afford *not* to explore in the frontiers. But weakening world oil prices and rising development costs could render these sources uneconomic. Canadians would be less vulnerable if government incentive programs were more evenly distributed among conventional sources, oil sands, enhanced recovery and frontier oil.

The energy policy-making progress requires substantial improvement to allow for more external inputs and to promote public awareness. The complexity of the present tax, regulatory and expenditure framework and the divergent interests of major groups affected suggests that, if unintended repercussions are to be avoided in future, all interest groups and not just the affected governments must be consulted. Policy analysis from outside experts is also needed.

The dominance of the federal and provincial governments in setting the focus and substance of energy policy needs to be reduced as well. When the institutional interests of government are at stake, the probability of protracted and acrimonious disputes increases. Issues of concern to others with an interest in the development of Canadian energy policy tend to be crowded out. While federal and provincial governments will continue to play the central role in energy policy-making, the scope for the intergovernmental disputes and the focus on federal–provincial interests could be lessened by increasing public interest in and understanding of energy issues.

During 1982, after the federal–provincial agreements had been signed, energy policy received far less public attention. In this environment, governments placed a relatively low priority on addressing the new, and very different energy challenges that were emerging. How will Canada deal effectively with a situation of excess supply and stagnant oil prices, for example? Instead of eliminating oil imports, the emphasis is now shifting toward the development of markets both at home and abroad for Canada's abundant natural gas. Energy conservation remains an important goal, but will the impetus be maintained as energy price increases slow and investment in energy-saving technologies suffers from the recession? Canadian oil supply options, particularly frontier and oil sands, appear less attractive today but remain an important part of Canada's energy future. The task will be to continue momentum in developing technologies that will lower development costs of these sources of oil.

These new challenges merit greater public attention. An initial step toward stimulating public awareness would be a parliamentary review of Canadian energy policy. This parliamentary review could be accomplished by the appointment of a special committee to act as a parliamentary task force. Such a task force would be modelled along the lines of the seven parliamentary task forces created during the period of May 1980 to February 1981.[1] These task forces had a small number of members who were selected to represent the major political parties and regional interests. In addition to the powers given standing committees, the task forces possessed substantial research staffs, undertook extensive travel to receive testimony from all interested parties, and issued

1. Task forces were appointed to review the following policy issues: alternative energy and oil substitution; north-south relations; critical skills in the '80s; the disabled and handicapped; regulatory reform; a national trading corporation; and federal-provincial fiscal arrangements. For a discussion of the characteristics and merits of these task forces, see "Parliamentary Task Forces: A Model for the Future?" *Parliamentary Government* 2 (Summer 1981): 3-6; and "Looking Toward Committee Reform: What Have the Task Forces Proved?" *Parliamentary Government* 2 (Autumn 1981): 3-7.

public reports to the House of Commons. They were required to complete their mandated review within a specified period of time, and were disbanded upon completion of their task.

The creation of a parliamentary task force on energy policy would have a number of advantages. Principal among these is the credibility it would have in speaking on energy issues. The special mandate from Parliament and the one-time nature of the review would underscore its importance. As the experience of the 1980-81 task forces revealed, public awareness and participation would be enhanced. In addition, Parliament's role in energy policy would be expanded. Finally, as the task force on fiscal arrangements and others demonstrated, a high-quality review can be produced in a short period of time.

The formation of a task force is not a panacea. Federal and provincial negotiators would be in no way bound to follow its recommendations. However, given the significant public participation and expectations engendered by the task force hearings plus the attendant media coverage of its report, significant impetus for government action could be created. As a result, a task force would be a useful mechanism for clarifying energy issues and promoting consensus on the energy policy changes required.

The NEP was introduced to Canadians as a solution to the nation's energy problems. It promised to unite Canadians and to make them prosper. In its first two years of existence, the NEP has proven to be a major disappointment. New energy challenges are emerging that are quite different from those the NEP was designed to deal with. The existing energy agreements, however, limit the ability of governments to adapt to the changing environment. Continued stagnation or a decline in international oil prices could seriously strain the existing pricing and taxation arrangements and further undermine the objectives of the NEP. A reassessment of Canada's energy objectives is already overdue. New mechanisms are needed to promote greater public understanding of the issues and greater involvement of individuals and groups outside of government in the decision-making process. There are many lessons that can be learned from the NEP. They relate not only to energy policy but to economic policy generally, to federal–provincial relations and to Canada's bilateral relationship with the United States. Recognizing these lessons would increase the likelihood of implementing more effective and less contentious policy in the future.

Appendix A: NEP Highlights

NEP HIGHLIGHTS

Producer Prices

- The wellhead price of $16.75 per barrel for conventional oil was scheduled to increase every six months by $1 per barrel during 1981, 1982 and 1983, by $2.25 per barrel in 1984 and 1985, and by $3.50 thereafter.
- Enhanced recovery oil was scheduled to receive $30 per barrel in 1981, adjusted at the beginning of each year thereafter by the increase in the Consumer Price Index (CPI) over the previous year.
- Oil sands production was scheduled to receive $38 per barrel in 1981, and for each year thereafter would receive the lesser of the international price or the 1981 price adjusted for changes in the CPI.
- The wellhead price of natural gas was to remain unchanged at $2.60 per thousand cubic feet (Mcf) throughout 1981. Beginning on 1 February 1982, the price was to be increased four times by 15 cents per Mcf to reach $3.20 by August 1983. Thereafter the price would increase 15 cents per Mcf for every $1 per barrel increase in the price of conventional oil.

Consumer Prices

- The consumer price of oil became a "blended price" made up of the wellhead price of conventional oil plus a Petroleum Compensation Charge (PCC). The PCC was set initially at $2.55 per barrel and scheduled to increase by $2.50 on 1 January of 1981, 1982 and 1983. The resulting revenue to refiners was expected to be more than sufficient to compensate them for the higher cost of imported oil, oil sands and enhanced recovery oil. The blended price was expected to increase by $4.50 per barrel per year during 1981, 1982 and 1983,

but would not be allowed to exceed 85 percent of the price of equivalent foreign oil.

- The consumer price of natural gas also became a blended price made up of the price of gas delivered in Toronto plus a Natural Gas and Gas Liquids Tax (NGGLT), the latter being set at 30 cents per Mcf initially, scheduled to increase to 75 cents per Mcf by 1 January 1983. Thus, the consumer price of gas was scheduled to increase from $2.60 per Mcf in October 1980 to $3.95 in August 1983, and thereafter 15 cents per Mcf for every $1 per barrel increase in the price of conventional oil.

New Taxes

- The NGGLT, a tax on all natural gas sales including those to export markets, was projected to generate revenues of $6.6 billion for the federal government between October 1980 and the end of fiscal 1983/84.
- The Petroleum and Gas Revenue Tax (PGRT) was set at eight percent of net production revenue and income from resource royalties and was not deductible for income tax purposes. The PGRT was projected to generate revenues of $5.1 billion by the end of fiscal 1983/84.
- The Petroleum Compensation Charge, to be borne by oil consumers, was set at levels sufficient to compensate refiners for the difference between the cost of imported, oil sands and enhanced recovery oil and to generate a small surplus.
- A Canadian Ownership Charge (COC) was proposed for the purpose of financing an increase of public ownership in the energy sector.

Exploration and Development Incentives

- Depletion allowances were to be phased out and replaced by the Petroleum Incentives Program. The incentive payments or grants were set at varying rates on eligible expenditures depending on the location of the activity and the level of Canadian ownership of the eligible company. Higher rates were established for Canadian-owned companies and for activity on the Canada Lands than on provincial lands.

Canadianization

- The federal government reserved for itself or a Crown corporation, a 25 percent interest in all existing and future petroleum rights on Canada Lands. This could be converted to a working interest at any time prior to authorization of production. Production on Canada Lands and Alberta oil sands required at least 50 percent Canadian participation to be approved.
- The federal government announced its early intention to purchase several of the large foreign-owned oil and gas firms.

Oil Self-Sufficiency

Measures included:

- Direct "off-oil" programs to reduce oil use, including: subsidies to consumers to switch from oil to natural gas, electricity and other energy sources; conversion of federal buildings to use other forms of energy; extension of natural gas pipelines and gas distribution lines; subsidies to convert vehicles to propane or compressed natural gas; encouragement of heavy fuel oil and heavy oil upgrading plants; and programs to increase the use of renewable energy sources.
- Programs to encourage conservation of oil through more efficient use in the residential, industrial and transportation sectors.
- Increased funding of research and development, giving priority to research on alternatives to gasoline, increased efficiency of energy use, and new energy sources.
- Actions to reduce vulnerability to disruptions in the supply of imported oil, including participation in the emergency sharing scheme through the International Energy Agency, bilateral oil purchase agreements with selected producers, an emergency oil allocation system, and increased oil storage.

Policy Analysis Committee

The C.D. Howe Institute Policy Analysis Committee (HIPAC) was formed in 1980 from the Canadian Economic Policy Committee, established in 1961. This change was brought about to help streamline the Institute's activities and to improve the process of accountability of staff to the Institute's members.

HIPAC's membership is drawn primarily from business and labor organizations that are members of the Institute. To encourage diversity of perspective, HIPAC also includes members from the academic world, from agricultural organizations, and from the professions. A network of Regional Advisory Committees is being established across the country to assist HIPAC in determining its research agenda and in ensuring that the research conducted by the Institute on its behalf is relevant and reflective of regional points of view.

Full meetings of HIPAC's membership are held twice each year. The purposes of these meetings are to hear expert speakers on current policies, to engage in frank discussion of topics raised by members, and to identify a research program that the Institute can effectively carry out to improve public understanding of important policy issues. The professional completion of this program is then supervised by the Institute's Policy Research and Analysis Division, which coordinates with the HIPAC Executive Committee.

Publications prepared under HIPAC supervision include:

- *Policy Review and Outlook* – an annual survey of Canada's economic performance and policy issues and options.
- C. D. Howe Institute *Commentary* – short topical policy analyses of current issues written by staff or outside experts.
- Observations – concise monographs, prepared by Institute staff, analyzing specific topics of current policy interest.
- Policy Commentaries – monographs of varying lengths prepared by technical experts analyzing current or prospective policy issues.

The Chairman of HIPAC is David M. Culver (President, Alcan Aluminium Limited); H.A. Hampson (President and Chief Executive Officer, Canada Development Corporation) is Chairman of HIPAC's Executive Committee.

Order Form

NAME _____
Please print

ADDRESS _____ CITY _____

PROVINCE _____ POSTAL CODE _____

ORDER	Unit Price	Number of Copies	Total Price
_____ *Taking Stock*. Commentary series. Wendy Dobson and Edward Carmichael.	$1.00	_____	_____
_____ *Japan's Financial System as a Factor in Its Economic Success*. Perspective series. David Wright.	1.00	_____	_____
_____ *Acid Rain: An Issue in Canadian-American Relations*. John Carroll.	6.00	_____	_____
_____ *Money, Inflation, and the Bank of Canada. Vol. II: An Analysis of Monetary Gradualism*. Thomas J. Courchene.	13.00	_____	_____
_____ *Trade Policy in the 1980s: An Agenda for Canadian-U.S. Relations*. Rodney de C. Grey.	8.00	_____	_____
_____ *A Place to Stand? Abandoning Monetary Targets: An Evaluation*. Thomas J. Courchene.	6.00	_____	_____

TOTAL Cdn. $_____

_____ Please send me your *Bibliography and Index of Publications*.

_____ I would like to subscribe to the Institute's regular publications (billed annually).

PAYMENT

_____ Check enclosed _____ Please bill me (postage additional)

Signature _____ Date _____

C.D. Howe Institute, Glendon Hall, 2275 Bayview Avenue, Toronto, Ontario M4N 3M6.